

Aviation News

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OCT. 8, 1945



Navy's New Grumman F8F Bearcat: Combining light weight and high maneuverability, which characterized Jap planes, this rugged fighter is reported as the fastest conventionally powered airplane. Speed is more than 400-mph. at sea level, much faster at critical altitude. Its climb is better than 5,000-ft. per minute; power is from a Pratt & Whitney 2800C driving a four-blade Aeroprop propeller. Delivered too late for combat, the Bearcat saw operational duty in the Pacific.

Surplus Disposal Reorganized With Symington Control

Wholesale quickening of procedures seen with veteran businessman at head of newly created administration.....Page 7

Extra Airports Necessity At All Major Air Terminals

Industry, CAA officials assert rising proportion of instrument approaches will force nationwide addition of new "bad weather" fields.....Page 39

Potential Lightplane Sale Bar Seen In Financing

Federal Reserve regulation prohibits use of trade-in allowance toward down payment on planes but allows it for automobiles.....Page 31

Guided Missile Supervision Swings Toward AAF, BuAer

Aircraft industry share in production of airborne weapons seen largely dependent upon final determination of jurisdiction.....Page 10

Railway Express Adjustments Asked By Airlines

Group believes air carriers have been deprived of sizeable revenue through Agency's power to enforce and interpret contract terms.....Page 18


Seven U. S. Lines Get C-54's As Surplus Agency Allots 40

Record domestic apportionment of the big transports sends dozen to PCA while Netherlands government gets 14.....Page 42

IMMEDIATE Smoke Detection

For airplane baggage compartments

TYPICAL INSTALLATION

- 
- ① SMOKE ANYWHERE IN BAGGAGE COMPARTMENT is pulled into duct (by suction of airflow)
 - ② SMOKE INTERCEPTS LIGHT from source in control housing
 - ③ PHOTOELECTRIC CELL IN DETECTOR UNIT responds to light intensity change
 - ④ DETECTS SMOKE OF ANY TYPE OR COLOR
 - ⑤ MIRROR ARRANGEMENT minimizes interference in exhaust duct
 - ⑥ FULLY COMPENSATED FOR LIGHT OUTPUT CHANGES—Second cell in control housing keeps circuit balanced if voltage drops
 - ⑦ QUICK CHECK TEST of equipment by manually operated shutter
 - ⑧ SET FOR ANY SENSITIVITY by adjusting length of light path
 - ⑨ ALARM CAN BE VISUAL, AUDIBLE OR BOTH

This sure, fast-acting system quickly warns plane crew of smoke in cargo compartment—detects fire in its initial stages! Write for bulletin giving further details.

Walter Kidde & Company, Inc., 1000 Main Street, Belleville 6, New Jersey



Kidde

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THE AVIATION NEWS

Washington Observer



STILL "SECURITY"—The end of the war did not end the Army's drive to control public information. In line with other dispersing indications that the military would like to continue some phases of censorship is the fact that the AAF is reported seeking in procurement legislation, broad authority for the Secretary to tell aircraft manufacturers what they shall or shall not make public.

PLANT DISPERSAL—Army Air Forces at the moment appears to be modifying its insistence on wide spread precision subconsuming as a method of achieving aircraft plant dispersal. Trend now is toward keeping procurement legislation and policies elastic enough to make possible a switch from peace to war production without having to wait for a declaration of war, passage of a war powers act, etc. AAF will sell, however, the desirability of subcontracting.

CAA-CAB REORGANIZATION—Information as to Presidential plan for reorganization of the Civil Aeronautics Authority, if any, has not yet been relayed to key members of Congress. However, Senator Pat McCarran's Judiciary Committee is reading a bill authorizing government reorganization which the Senator indicates he hopes Mr. Truman will use to establish the Authority as an independent agency. Under the proposed bill, the President could transfer CAA-CAB to the Interstate Commerce Commission. During the 1940 Congressional fight over placing them under the Department of Commerce, Mr. Truman, then a senator, supported an independent Authority.

NACA DECLASSIFICATION—National Advisory

Committee for Aeronautics, one of the war's most tight-lipped agencies, is now beginning to ask more than 300 NACA technical reports and notes written since wartime security classification restricted them from general availability, recently have been declassified. In general they cover research in aerodynamics, aircraft structures, aircraft power plants and aircraft operating problems of a scientific nature. These publications will be made available throughout the aviation industry to technical libraries and educational institutions.

'UN-CAMOUFLAGE'—Complaints are reaching the Army from aircraft companies on the question of "un-camouflaging" plants. The Army made contracts with various plants whereby they were to shoulder the expense of camouflaging when there was fear of enemy air raids. Contracts specified that the Army, also, was to bear the expense of restoring the plants to the original condition. Now, several manufacturers are complaining the Army is backing out, pleading lack of funds for removing paint, eliminating window and skylight blackouts. Manufacturers, anxious to get back to peacetime conditions and appearance feel that they have been left out on a limb.

NAVY SCHAFF—The Navy's ambitious program to provide a heavy torpedo bomber, TBY Scroff, for the carrier force, is being concluded with sale of TBY fuselages to a kitchen utensil manufacturer for conversion into pans and pots. Not a single TBY got to the fleet, the contract having been terminated well in advance of the end of the war. Sale of the fuselage as scrap from the Big Allentown, Pa. plant of Consolidated Valve.



First post-war Scroff, completed last week

SPEED STRESSED

Surplus Disposal Reorganized As Symington Assumes Control

Wholesale quickening of procedures seen with veteran businessman at head of newly created administration; directives expected to emphasize elimination of industry "perils," movement of items this year.

A wholesale speeding up of surplus property disposal, with new and definite directives issued to disposal agencies, is seen in the offing following the swearing in last week of W. Stuart Symington, St. Louis, Mo. businessman, as sole administrator of surplus property.

Although Symington's greatest job and, consequently, perhaps greatest interest will be in consumer goods, first effects of the sweeping reorganization which created the Surplus Property Administration could be felt in the aviation field.

► **Trends**—Four items comprise the principal aviation surpluses: aircraft, engines and parts, plants, and tools. On all four, the new

administrator has expressed ideas pointing toward the following:

► **Aircraft**—Types suitable for civilian use must be moved on best possible terms, but sales are paramount; combat types should be scrapped, wholesale if necessary, without too much concern for salvaging.

► **Engines and parts**—Relatively little can be sold for aviation use; speedy determination must be made of other possible markets, followed by salvaging and scrapping if necessary; engine surplus must not be permitted to imperil normal trade.

► **Plants**—Less rigid sale and lease terms, better treatment of wartime leases.

► **Tools**—Retention of present pro-

cedures much as they are, no tools seem to be moving satisfactorily; quicker removal of tools not desired by plant operators.

Overshadowing practically all of Symington's utterances on the surplus problem is one compelling desire: speed—movement of the majority of items during the business reconversion period, which he seems to feel will be drawing to a close about the first of the year.

Along with this is his apparent belief that disposal of surplus plants can be a substantial aid to reconversion. He does not fully approve of the terms being offered to date by the Reconstruction Finance Corp., disposal agency for plants. Former head of the Emerson Electric Co., Symington knows the plant situation first-hand. His organization operated in two government-built plants, but could not agree to RFC's original terms for continued use of the facilities.

► **Buyer Aid**—More lenient arrangements for purchasers, and greater speed, are expected to feature orders Symington shortly will send to disposal agencies.

With expense authority over surplus disposal, Symington will move toward making the present act more effective, rather than to



Sikorsky First

—IN PRODUCTION—IN THE SERVICES

Sikorsky helicopters, first to roll off a helicopter production line, were the only ones to see active military service. In addition to training hundreds of pilots in the U.S.A.A.F., the Coast Guard, the U. S. Navy, the R.A.F., and the Royal Navy, Sikorsky helicopters were in action in England, Alaska, China, Burma, India, the Philippines and on Army floating repair bases in the Southwest Pacific.

SIKORSKY AIRCRAFT

BRIDGEPORT, CONNECTICUT

ONE OF THE FOUR DIVISIONS OF UNITED AIRCRAFT CORPORATION



PART OF AAF OCCUPATION FORCE:

This array of Boeing Flying Fortress, based up on an air field in Germany, is part of the U. S. occupa-

tion air force. These planes, about 250, were flown from England to this aerial date.



NACA INDUSTRY CONSULTING COMMITTEE:

First meeting of the Industry Consulting Committee, established by the National Advisory Committee for Aeronautics (Aeronautics News, Sept. 24), opened J. H. Kunkelberger, president of North American Aviation, chairman, and H. M. Warner, president of United Aircraft, vice-chairman. Around table, members are, left to right: Beverly Hazard, Harmons School of Aeronautics; Vannerus Bush, NACA; William A. M. Rardin, assistant secretary of commerce, L. A. Bell, president, Bell Aircraft; William Littlewood, American Airlines; Admiral L. B. Richardson, NACA; Dr.

George W. Lewis, NACA; Theodore P. Wright, Civil Aeronautics Administrator; Gen. B. W. Clafaine, AAF; Kunkelberger; C. Rodini, Warner, president, PCA; Robert E. Grunt, president, Lockheed; Jack Frye, president, TWA; Warner, and W. T. Piper, president, Piper Aircraft; Background, T. L. K. Small, NACA, engineering secretary of the committee, E. R. Sharp, NACA; Col. D. M. Pitt, AAF; Capt. Robert S. Hatcher, Boeing Aircraft; Alexander Greiner, Lockheed; NACA; John F. Victory, NACA; and Paul H. Kewener, AAF.

ask Congress for amendments. He believes time is so short for maximum disposal that the best plan is to continue utilization of disposal agencies, with their trained staffs, rather than seek Congressional sanction for an independent agency.

While not desirous of any immediate change in the law, Synagoga has already moved successfully to shake-up the existing agencies. Five administrative branches have been set up. They are:

► Capital and production needs—under which come all aviation airplanes—headed by David H. O'Brien, who has been in charge of aircraft, consumer goods, headed by Merrill C. Fenton; operations, headed by Col. G. R. Hanson, executive research, headed by Dr. Raymond T. Bennett; public information, headed by L. A. Col. John M. Redding. The latter post assumes greater importance than that previously filled by a director of information, with Col. Redding on a policy-making level.

Another key point in Synagoga's program is simplifying the exercise of priorities by these agencies. This will be in charge of a new deputy administrator, James J. Wadsworth.

Initial reaction on aviation of SPA's creation likely will be in the matter of scrapbooking. RFC has broad authority to proceed in this respect, but has been delayed by operational problems, chiefly, and according to some sources, by lack of funds. SPA is expected to move

on both fronts; assisting in the solution of what will scrap and how, and, if necessary, asking funds from Congress to reimburse RFC for scrapping expenses.

► Risks vs. Means—Some top officials at RFC are represented as being wary of scrapping, fearful of its political aspects. SPA executives, on the other hand, are willing to risk Congressional displeasure in the carrying out of their ideas.

Pilot, Aircraft Listings To Be Resumed

Publication, sale and distribution of aircraft and aircraft certificate lists of the Civil Aeronautics Administration will be resumed soon, after a four-year interruption.

Formerly issued by the old Aeronautical Chamber of Commerce, the lists were put up for bid recently by the CAA, with Haddaway Reed Publishing Co. of Dallas, Tex., offering the top sum of \$10,000.

► Pricing: Plans—Two series will be issued, about 30,000 certificated aircraft will be listed by type and owner, with monthly supplements thereafter. The first pilot list will include about 150,000 names, by states, with subsequent supplements monthly. A student pilot list will be prepared later.

George Haddaway, one of the partners of the new company, is editor of Southern Flight magazine. Robert B. Reed, of San Angelo, Tex., is publisher.

Aviation Clinic Unit Shaping Programs

A committee under the chairmanship of John E. P. Morgan, executive director of the Aircraft Industries Association, is working on a program for the National Aviation Clinic to be held at Oklahoma City, Nov. 12-21, and which will be opened by President Truman.

Invitations have been sent to each of the United Nations to send representatives to take part as observers. Voting delegates will be invited to vote, half of whom will represent the various divisions of the aviation industry, and half the public. The public generally, federal and state officials and others may attend the Clinic as consultants and observers and participate in its activities.

► Session Leader—William R. Enayart, president of the National Aeronautics Association, will preside at the annual session of the Clinic, all of which will be held in the Oklahoma House of Representatives chamber.

President Truman, in accepting the invitation to address the opening session of the third annual Clinic, commented that "in the global war which ended with the unconditional surrender of our axis foe aviation came into its own. It underwent a complete evolution in the six years that lay between the beginning of the war and the collapse and capitulation of Japan. We are looking

now to the future—a future of peace during which aviation will achieve its greatest development and expansion and play a role of incalculable importance."

Stanley C. Draper, head of the Clinic Executive Committee announced the following committees: ► Resolutions: Dudley H. Dorr, Hale A. Dorr, Boston attorneys, chairman; Glen S. Eastburn, manager, Aviation Department, Los Angeles Chamber of Commerce, vice-chairman.

► Program: John E. P. Morgan, Aircraft Industries Association, chairman; William P. Redding, National Aeronautics Association, vice-chairman. ► Credentials: James R. Grohman, United States Aviation Underwriters, New York, chairman; William P. MacCracken, general counsel, National Aeronautics Association, vice-chairman.

► Public Relations: Merrill C. Fenton, vice-president, Hearst Corp., chairman; Edgar T. Bell, secretary-treasurer, Oklahoma Publishing Co., Oklahoma City, vice-chairman. The public relations activities will be divided into three divisions including newspapers, James Birbeck, aviation editor, Associated Press; radio, Leonard C. Reinisch, station



BRITISH AUTO TRANSPORT:

Most of our possible positive uses for some of Britain's larger commercial surplus or new passenger models, some last used with the war, reported from the English air publications. The Airplane. Shows are three Austin automobiles being loaded into an Army truck. According to the car manufacturer, in conjunction with the plane builder A. V. Roe Co., use of the big bombers as a means of shipping small cars to South Africa and other overseas points is now being investigated with an eye to explosive operations as soon as equipment becomes available. The last of three Austins, it is claimed, can be loaded and ready for flight within a half hour and delivered without dismounting.

WBS Atlanta, and publications. On Peabody Swift, Time Magazine.

Rolls Royce Enters Canadian Market

English engine firm establishes North American office at Montreal, proceeds with jet tests abroad.

In a significant move of particular interest to engineers and technicians in the United States, Rolls Royce Ltd. of England, has set up a North American technical office at Montreal and plans a service organization throughout Canada to service engines used by the RCAF and commercial aircraft in the Dominion.

Rolls Royce has also set up a major status department at Montreal and plans to open a plant for servicing and overhauling at Montreal J. D. Pearson, chief of technical services for the company, said it was not planned for the immediate present to manufacture the engines at Canada, it being more advantageous to ship them from Great Britain, Canada, incidentally, has no aircraft engine manufacturing facilities.

► Jet Plans—Of particular interest was the indication that Rolls Royce is basing much of its Canadian plans on peacetime use of its jet propulsion gas turbine engine, the Derwent, which powered

the RCAF Glister Meteor, the only allied jet propelled aircraft to combat in the European theater.

The company is working in conjunction with the Canadian government's Turbo Research Ltd., Toronto, the Royal Canadian Air Force, and with Trans-Canada Air Lines, with a view to having a share in Canada's commercial aviation.

Location of the service plants will depend largely upon RCAF decisions and requirements. Canadian-built, Lovelock, Spoford, Hargrave and Jenkins war craft were powered with the Rolls Royce Merlin engine, built by Packard Motor Car Co., Detroit.

Air Power League Job Plan Expanded

Program of The Air Power League to expand employment in civil life of aviation veterans of the armed forces has enrolled charter members in 19 states, thus far operating informally through connections with business organizations in their communities.

Offers of assistance for veterans were in response to a letter to charter members from Charles E. Wilson, league president, who said that most combat aviators who will be released from the Army and Navy are passing as years go and that a great many of them have never been employed, entering the service directly from school.

Directed Missile Supervision Swings Toward AAF, BuAer

Aircraft industry share in production of airborne weapons seen largely dependent upon final determination of jurisdiction; ordinance departments of both services permit in demands for control.

Army Air Forces and the Navy's Bureau of Aeronautics appear to be gaining headway in their efforts to control procurement and production supervision of guided missiles and similar airborne weapons, instead of having these functions go to the ordinance departments of the Army and Navy.

The tug-of-war between airmen and ordnance men is one of the greatest interest in the aircraft industry. With the airmen having jurisdiction over new weapons of this type, the aircraft industry would share heavily in development and production work, a matter which, probably would not occur if the jurisdiction was entirely in the hands of ordnance.

Vague Differences—However, the line between ordnances and ballistics, in this case, is so vague that policy determination in this matter is a lifetime hazy and an arbitrary line will have to be drawn some where between the airmen and the ordnance men.

Both the Army and Navy have been beset with difficulties in this regard ever since the robot bombs and their like made their first appearance. At the Navy it was the Bureau of Aeronautics on one side and the Bureau of Ordnance on the other. At the Army it was AAF and ordnance.

It is the view of airmen in the ordnance that all airborne weapons that are wing-borne, or their equivalent, should be designed and developed by the aircraft industry. This view is not unanimous in either the War or Navy departments, where ordnance men contend they should have as important role in the development of these new weapons — many of which are still in the "paper and chalk" stage.

Arguments—The new airborne weapons fly through the air so BuAer and the AAF contend they should have jurisdiction. But, they have no pilot, so BuAer and ordnance people in the War Department hold they are within their jurisdiction.

Beyond the whole question is a

matter of base policy which the War Department has yet to settle. Although it appears that the AAF will have a larger share of jurisdiction, it is a much smaller part relating with ordnance.

It is understood that the Navy, however, has taken direct steps in the matter with the issuance of a directive, but the AAF, publicly at least, merely says that it is logical that the responsibility for the procurement and development of such weapons should come under their jurisdiction. Beyond that, the AAF does not commit itself publicly, but privately the feeling is strong. There is also the natural desire not to antagonize Congress which is going to be asked for appropriations to develop these devices.

"Decision"—A real controversy existed in the Navy for some months over jurisdiction, or co-jurisdiction, as the Navy calls it, of the new weapons. The dispute finally was decided in one of the stipulated directives which makes the Navy imperative to understanding. The directive is understood to state, in effect, that as those guided missiles depending upon the action of the new AAF for sustained flight, BuAer shall have cognizance and on those dependent upon them thrust for flight, BuAer shall hold.

AAF thinking, which is not in directive form, is that those weapons which are self-propelled or launched from the air should be under the AAF and those fired either from the ground or propelled by other means of charge, should come under ordnance.

Interim RCAF Planned

Organization of a volunteer Canadian interim air force to serve for two years, presumably during which the size and nature of the permanent Royal Canadian Air Force will be decided, has been announced at Ottawa.

The interim force, under present plans, would sign up to Sept. 30, 1947, at present active service

pay and allowances. Applicants for the force are being considered carefully since it is expected that most of the interim force will make up the permanent organization. Size of the interim force was not decided.

NAA Names Four To Head Regions

New appointments aimed at clinching organization's claim to top position, promotion role; services expected.

Four regional representatives to coordinate activities in the field have been appointed by the National Aeronautic Association, effective Oct. 15.

Col. Don C. Johnston, Des Moines, Iowa, is Civil Air Patrol wing commander, is in charge of the northwest section of the country. John McKee, Bensfield, Miss., private flyer, the southeast. Don McGee, former airline pilot and Washington representative of the Federated Airlines Association, the southwest. Representative for the northeast has been chosen, but his name is being withheld pending the completion of personal business.

Phase Four—After a one-week indecisive period at the Washington headquarters of NAA, the region will begin covering their territory by air. What available lightplanes will be used exclusively under an arrangement whereby it is hoped to promote greater use of personal aircraft.

The move of the new NAA move is both to expand recruitment of members, and to widen NAA service to an increasingly air-minded public. In the post-war period that has been freely predicted to be the era of aviation's greatest expansion, NAA is seeking to lock up its claim of being the strongest organization devoted to promotion of aviation.

While the oldest association of its kind, founded in 1912 as the successor to the Aero Club of America, organized in 1905, NAA has undergone several complete changes of character. Of late, it has begun to concentrate on pilot education in aviation, with emphasis on landing facilities, private flying, air defense, and model aeronautics.

Members indicate that perhaps the successful formula has been found:

In a little more than a year,

number of chapters has more than doubled.

Involved on all phases of aviation, from all segments of population and not just members, are running 20 to 30 a day, with 3,000 received already this year.

Advocates of the "support coordination service" staffed by noted and experienced engineers and other authorities, is constantly being sought by states and municipalities.

Person aviation observers, both government and private, practically without exception turn to NAA for advice on what to do and where to go in this country.

NAA, reluctant to talk about number of members, which is believed to be approaching 25,000, instead, officials speak in terms of service rendered, which can be improved. It has a staff of 123

persons, all gathering, gathering, acting as a clearing house of information. NAA has distributed about 100,000 pieces of literature in approximately a year. Most of its contacts of pamphlets originally issued by other organizations.

ANLC Abolition Has Slight Effect

Shift of functions to State Department leaves overseas surplus disposal virtually unchanged.

Little immediate change is expected in procedures for disposal of overseas disposal of surplus and parts as a result of the abolition of the Army-Navy Liquidation Commission and transfer of its functions to the State Department.

The Executive Order effecting the switch returns to the former authority for the Army and Navy to assign personnel to overseas disposal, but now they will be detailed to State.

Actual absorption of ANLC into State will not take place for some time, it is predicted, as the latter department is fully engaged in its own reorganization and in taking over the Office of War Information and other functions recently assigned it.

Staff Growth—Meanwhile, ANLC is proceeding to enlarge its overseas staff. The new chief, Col. Melvin Hall, former assistant chief of staff of the Ninth Air Force, now an inactive duty, will be in charge of aircraft disposal in Europe, with his headquarters in Paris. He will be assisted by special field staff John D. Ables, formerly in Latin America for the



NOVEL NAZI ENGINE PLAN REVEALED:

Strutler for use even newly-announced Dornier XB-42, (AVIATION NEWS, Sept. 17), as that power for the new propeller is fed through an engine shaft from an engine in the fuselage, (see Dornier 335A Sopwith-bomber is pictured publicly for the first time in the above British Air Ministry photo). Unlike the side-by-side engine arrangement to power the American ship's land-mounted, counter-rotating props, the Dornier plane uses a tandem arrangement to drive one propeller in the nose and another in the tail. The same prop's engine is mounted ahead of the tail while the second powerplant is installed behind. Versions of the plane carried one and two persons (For further discussion of extensive shaft powerings, see Production section.)

Parthild Airplane and Engine Corp., will handle aircraft for ANLC in Rio de Janeiro.

Latest ANLC report, as of August 31, shows total surplus dollars being received of \$433,781,833. The majority has been salvaged, amounting to \$274,195,494 for aircraft, and \$115,516,139 for parts. Plans and parts sold total \$1,845,663. Aircraft exchange \$25,856, 918 remained on hand on that date, but the bulk of this amount consisted of 64 C-109's in England, which are valued at \$23,433,544. Overhaul cost of these is considered doubtful as they are tanks converted to carrying only gasoline and oil.

One of the major stumbling blocks in ANLC's path—and also one of the principal reasons for the transfer to the State Department—is the desire to receive payment in dollars. Few of the European countries have dollar bills, and even those are wary of using them until there is a determination of U S financial policy toward its Allies.

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United Aircraft Shifts

Top Financial Positions

A resignation of United Aircraft's accounting and financial personnel has been announced by Frederick H. Reutschler, chairman, in a letter to the board elected Joseph F. McCarthy, new controller, to the new office of finance chairman and also elected William R. Robbins, general

accountant, to the office of controller. The office of general accountant was discontinued. McCarthy continues as chief accounting and financial officer. Robbins will have immediate responsibility for all accounting and financial matters of the corporation and its subsidiaries, under McCarthy's general supervision.

AVIATION CALENDAR

Oct. 10—British International Air Show, London.
Oct. 11—Hullabaloo Festival of Aeronautics, New York.
Oct. 12—Hullabaloo Festival of Aeronautics, New York.
Oct. 13—Hullabaloo Festival of Aeronautics, New York.
Oct. 14—Hullabaloo Festival of Aeronautics, New York.
Oct. 15—Hullabaloo Festival of Aeronautics, New York.
Oct. 16—Hullabaloo Festival of Aeronautics, New York.
Oct. 17—Hullabaloo Festival of Aeronautics, New York.
Oct. 18—Hullabaloo Festival of Aeronautics, New York.
Oct. 19—Hullabaloo Festival of Aeronautics, New York.
Oct. 20—Hullabaloo Festival of Aeronautics, New York.
Oct. 21—Hullabaloo Festival of Aeronautics, New York.
Oct. 22—Hullabaloo Festival of Aeronautics, New York.
Oct. 23—Hullabaloo Festival of Aeronautics, New York.
Oct. 24—Hullabaloo Festival of Aeronautics, New York.
Oct. 25—Hullabaloo Festival of Aeronautics, New York.
Oct. 26—Hullabaloo Festival of Aeronautics, New York.
Oct. 27—Hullabaloo Festival of Aeronautics, New York.
Oct. 28—Hullabaloo Festival of Aeronautics, New York.
Oct. 29—Hullabaloo Festival of Aeronautics, New York.
Oct. 30—Hullabaloo Festival of Aeronautics, New York.

Avco's Holdings Listed For CAB

Inquiry to determine if corporation has financial control of AA spotlight extensive investment and manufacturing interests.

Aviation Corp.'s extensive interests as a holding and manufacturing company have been spotlighted by a stipulation filed in Civil Aeronautics Board's investigation to determine whether the corporation holds financial control of American Airlines, Inc. The stipulation was one of two signed by John H. Wanger, public counsel for CAB, and H. S. Pruitt as vice-president and general counsel for Avco. The other waived an examiner's report, the filing of briefs, and oral argument—an action which placed the case directly before the Board.

AA Interest.—Information on Aviation Corp.'s interests shows it owning a 22.22 percent common stock interest in AA through holdings of 337,533 shares out of a total of 1,509,507.99 common shares outstanding on July 31, 1945.

With approximately 17,800 shareholders, the next largest stockholder was a Boston investment firm—Bishop & Co.—with 19,000 shares recorded in its name. However, the stipulation points

out that 50,000 of the outstanding shares of AA common stock are reserved for exercise of a purchase option held by C. B. Smith, chairman of the board of AA.

Trust Deposit.—Aviation Corp.'s holdings in AA have been deposited under a trust agreement with Jesse H. Jones, which expires six months after the end of the national emergency (provided under supplemental trust agreement dated March 30, 1944).

Likewise, in Pan American Airways Corp., Aviation Corp. is the largest single shareholder with an 1.34 percent common stock interest through the ownership of 116,181 shares. With owned 23,443 stockholders, PAA has as its second largest holder the investment firm of Merrill, Lynch, Pierce, Fenner & Beane, who hold 115,377 shares in the firm's name, or about 2.97 percent.

Aviation Corp. also holds a 29.9 percent common stock interest in Consolidated Vultee Aircraft Corp. and owns 39 percent of the outstanding common stock of Rocomwell Field.

Operations.—Aviation Corp.'s operating units include: Northern Aircraft Products Division—manufacturers of airplane engine parts; Lycoming Division—manufacturers of aircraft engines for trainers; Republic Aircraft Products—manufacturers of high precision aircraft engine parts; American Propeller Corp.—manufacturers of hollow steel propellers; and Spence Heater Division—manufacturers of shipping and tank parts, boilers and heaters. In addition, Aviation Corp. has a controlling interest of 59.3 percent founder's stock, or 20.3 percent equity, in New York Shipbuilding Corp.—manufacturer of cruisers, aircraft carriers, landing ships, etc.; a controlling interest of 60.1 percent in American Central Manufacturing Corp.—manufacturers of kitchen sinks, steel cabinets, and wartime production of bomber wings and jeep bodies; and a controlling interest of at least 55 percent in Crosley Corp.—manufacturers of household appliances.

Carterwright, Ellington Join Republic Aviation

Ken Ellington, who has been manager of the Aircraft Manufacturers Council, Aircraft Industries Association, eastern region, New York, has been named director of public relations of Republic Aviation.

End of APB

The last business of the Aircraft Production Board has been transacted and APB has turned the job of directing the joint Army-Navy aviation program over to the Aeronautical Board.

The production agency dissolved itself and its executive and administrative branches—Aircraft Resources Control Office (ARCO) and Aircraft Scheduling Unit (ASU). The Aircraft Production Board played a major role in directing the production of 279,593 aircraft of all types between Pearl Harbor and VJ Day and is praised by War Chairman Krug as "one of the most outstanding and successful examples of coordinated Federal activities developed in this war."

tion Corp., Farmingdale, L. I. Col. H. H. Cartwright, recently returned from active service in the European-Mediterranean war theater has been appointed assistant to Republic president Alford Marchev.

Loss Carry-Back Tax Rule Uncertain

Excess profit levy case ending; aircraft industry virtually alone is used for application of losses 99 war years.

Major aircraft industry interest in the "immaterial" tax bill, it is believed, will be in a modification of the loss carry-back provisions, and the dropping of the excess profits tax.

Work on the bill began last week as Secretary of the Treasury Vincent, advised, recommendations calling for repeal of the excess profits tax, and for retention of the carry-back for only one year longer, rather than for at least two years as desired by the industry.

Loss Effort.—On the loss carry-back, the aircraft industry is practically standing alone against both the Treasury Department and other segments of American industry. This feature of the present tax code merely provides that losses incurred in an unprofitable year—for example, 1946—can be carried back and be applied against profits of a wartime year. Treasury opposes the continuation beyond 1946 of the loss



Here's a Pointer ON PERSONAL FLYING

Ladies and gentlemen, there are two fundamentals of personal flying. The first is a good light airplane that anyone can fly. The second, airplanes placed all over the map—even in such towns—so that people can travel in their own planes as they see fit in their own.

The Aeronca people have concentrated on these two fundamentals—designing and building successful personal planes and the provision of landing strips for the use of those planes. The company's complete dealer plan tries in to provide planes and service wherever needed.

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(Report Agency—Aeronca, Inc., 35 Beaver Street, New York 4, N. Y.)



AMERICA'S PERSONAL PLANE
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carry-back for three own reasons. It is to let the political view that Congress never wants to give money back. It is "investing money," by possibly encouraging unscrupulous taxpayers to tangle their books. It creates a tremendous administrative problem in that the Treasury cannot close its books finally for a period of years.

On the other hand, the Treasury is favorable to an extension of the loss carry-forward section of the present code. This, while possibly helpful to the aircraft industry, is not as definitely beneficial as the carry-back, industry circles feel. The future is uncertain, it is pointed out, while the industry knows it made profits in the past.

Other Industries — Somewhat conversely, that is also the reason the aircraft industry is supporting continuation of the carry-back, while other industries show little interest. By-and-large, civilian industry can look forward to increasing profits after the first one or two post-war years. A loss carry-forward possibly would serve those industries better than a loss carry-back.

Arctic Weather Bill Pushed In Senate

Legislation directing U. S. participation in the development of an international basic meteorological reporting network in the Arctic region has been recommended to the Senate by its Committee on Commerce.

The bill, introduced by Sen. Owen Brewster (R-Me.), provides for joint action by the Weather Bureau and the State Department, working in cooperation with airlines, to promote the establishment, maintenance and operation of a network of weather reporting stations in the Arctic.

Program Outline—A tentative plan for weather service development in the region, drawn up by the Weather Bureau, calls for a \$1,600,000 program, involving ten stations over 500 miles of blank land masses. It was qualified, in testimony before Senate Commerce, however, that this plan is now being worked over by representatives of the State Department, Coast and Geodetic Survey and the Weather Bureau.

Wash., Nov. 14.—Sen. Brewster's new law has 500 weather stations in the Arctic region, according to in-

formation submitted to Senate Commerce.

It was also disclosed that the Massachusetts Institute of Technology has undertaken an independent project to determine weather development for the Arctic.

Four Air Firms Change Top Posts

Wright Aeronautical, Free Insurance, ERGO, TWA, Inc. and its key executive and managerial positions.

Strengthening personnel lines for renewed wartime efforts, three manufacturers and one transport company late last week announced changes in top executive and managerial positions.

Wright Aeronautical — Chief engineer of Wright Aeronautical Corp. since 1940, has been appointed vice-president of engineering of that company. With Wright Aero since 1935, Young directed development of the C-47, first airplane to utilize 2,000-hp., and predecessor of the 3,200-hp. Cyclone. Lately, he has been working on gas turbine development.

New general manager of the Pratt Instrument Division of Bendix Aviation Corp. is Leroy D. Kiley who has been executive assistant to the vice-president in charge of engineering. He will concentrate on the Bendix firm's program of recruitment to civilian production.

Prior to becoming associated with Bendix four years ago, Kiley was president of the Columbia Oil Co. in Washington, D. C., and the Mitchell Oil Corp., of New York City. He was a World War I air force pilot. After VE-Day, he was named by Bendix to the AAF to assist in a survey of Germany's technological developments.

Engineering and Research Corp. — Rensselaer, Md., manufacturer of the Freewave, has revealed the appointment of George F. Ryan as director of sales for the six-post lightplane. He has been head of sales and service for the Freewave in New York. Harry Agerter will continue as sales manager.

Charles DeBorja, who has been western director of sales and service for Transcontinental & Western Air during the war, has resumed his former duties as director of the western news bureau of TWA at Los Angeles.

Associated with TWA for many years in public relations work, Dayhoff now has replaced Leonard Kimball, who succeeded Leo Beren as chief of TWA's publicity.

Gen. Fritz Joins AA

L. G. Fritz has been elected vice-president of American Airlines in charge of operations. Hugh L. Smith, an professor, remains with AA as vice-president on special assignments.

Fritz went on active duty with



L. G. Fritz

the AAF in April, 1942, and was chief of operations of the Air Transport Command, as a colonel, until September, 1943, when he was assigned to the North Atlantic wing as commanding officer. In June, 1944, he was promoted to Brigadier General. He served as commanding general of the North Atlantic division of ATC since its activation in August a year ago before the war. He was operations vice-president for TWA.

All American Relection

Officers and directors of All American Aviation were reelected at a recent annual meeting. Stockholders voted to fix capital stock at one million shares of common stock with \$1 par value per share.

Officers are: Halsey R. Barclay, president; Harry B. Stinger, vice-president; Charles W. Wead, vice-president-treasurer; Edward E. Kline, Jr., vice-president-general manager; William B. Moore, vice-president-operations; Austin M. Zimmerman, secretary and general counsel; Harry F. Pratt, assistant treasurer; William C. Gebelov, comptroller; and David L. Miller, assistant secretary.

AS WESTERN AS

THE Golden Gate

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LABOR and MANAGEMENT MEET — for PEACE or CIVIL WAR?

The prospect of a knock-down and drag-out fight in the automobile industry does not augur well for the reconversion outlook, which upon every other score is bright. Any widening and outbreak of the type of industrial warfare which now threatens will disrupt, more thoroughly than anything else on the horizon, an orderly transition to a peacetime economy.

It is doubly unfortunate that there should be a general lightning of union and company hands from upon the eve of the Labor-Management Conference, which on November 5th will convene at President Truman's direction for the purpose of "working out by agreement means to minimize labor disputes." If the current work stoppage occasioned by industrial conflicts should increase rather than diminish between now and November first, the Conference atmosphere hardly promises to be favorable to a diplomatic examination of basic issues.

Yet the shadow of the threatened industrial storm that hangs over the Conference only serves to emphasize the importance of reaching satisfactory agreement upon two problems with which such a Conference might deal. The first is that of determining what machinery shall be used for settling disputes upon which employers and workers have reached an impasse. The second, and more far-reaching, is that of arriving at some common understanding upon the major issues which commonly lead to irreconcilable disputes.

Settlement of Wartime Disputes by the War Labor Board

During the war the first problem was handled largely by machinery created in the National War Labor Board. Supported by general adherence to patriotic pledges by labor leaders and employers not to resort to the use of economic force against each other during wartime, and backed up on rare occasions by use of the President's power to seize plants for war purposes when its orders were not obeyed, the Board managed, by what amounted to compulsory arbitration, to settle the nation's wartime labor disputes with relatively little economic loss.

But it can scarcely be claimed that the War Labor Board did much to resolve the issues from which disputes grew. Indeed, the fact that it was available to some orders in cases which the Secretary of Labor certified as likely to lead to substantial interference with the war

effort, resulted in the conversion into full fledged disputes of many disagreements which would otherwise have been settled at a local level in the course of collective bargaining. Meanwhile, local collective bargaining machinery which should have been doing most of this work was neglected, and will need thorough reconversion even to be brought back to its prewar level of effectiveness.

With V-J Day came an abrupt change in the status of the War Labor Board. One of its main purposes, labor's "no strike pledge", was promptly withdrawn. It could no longer rely on the President to use his power to seize plants for war purposes to force obedience to its orders. Consequently the Board agreed that it would accept now cases only if both parties to the dispute stipulated in advance that they would abide by the Board's findings, and that it would clear its dockets of old cases as rapidly as possible, and that it would then go out of business, leaving to the Labor-Management Conference the question of what should take its place in the postwar period.

What Shall Take the War Labor Board's Place?

The immediate and pressing task of the Labor-Management Conference is to agree upon machinery for settling industrial disputes in the peacetime economy.

Neither management nor labor wants the continuation of compulsory arbitration to which they submitted as a necessary war measure. But it must be clear to everyone that if any substantial proportion of the disputes that inevitably arise are settled by resort to strikes and lockouts, economic anarchy will result. Not only will it be impossible to achieve the high levels of output and employment that have been set as postwar goals, but it is questionable whether our economy could survive. The only alternative to compulsory arbitration under government auspices is for management and labor to demonstrate their ability to effect a peaceful resolution of their differences without it.

The most obvious need is to set up local machinery at the grass roots where disputes originate. That in where most of them should be settled by local negotiation and, when that fails, through voluntary arbitration to mediation or arbitration under terms of reference to which the parties agree. Many areas, which at plant level are relatively simple in character, are blown up to formidable dimensions and complexity when they are passed along

the line for decision in Washington. The centralizing process is one that frightens everyone connected with it because it focuses attention upon the possible importance of precedents established by a decision, rather than upon reaching satisfactorily the particular dispute at hand.

Consequently, some Federal machinery must be provided which may be called upon in cases where the size or importance of a threatened dispute clearly can be beyond local jurisdiction. That will mean the thorough revamping of conciliation and mediation machinery which exists, but which has proven easy through dense while compulsory arbitration was the order of the day.

At last, this involves a complete reworking of the United States Conciliation Service with a complete strengthening of its personnel. There may be wisdom also in recently advanced suggestions for the creation of a board of arbitration to act in cases voluntarily submitted by the parties concerned, and for boards of inquiry to make reports upon the merits of disputes in which the public interest is concerned. But there is valid ground for questioning what appears to be the common assumption that such machinery should be located in the Department of Labor. It belongs neither there nor in the Department of Commerce. For the work which such agencies are called upon to perform, both the appearance and fact of complete impartiality are essential to effective performance. Assurance of impartiality will not be lost by placing them in a department specifically charged by Congress with the task of advancing the interests of wage workers.

Resolving the Issues Over Which Disputes Arise

It may be, as many think, that the forthcoming Labor-Management Conference cannot effectively handle any problem beyond the procedural ones suggested above. If that is true, the dispute probably should be restricted to planning the reorganization of collective bargaining and dispute-settlement machinery, in view of the urgent need for putting it in working order.

But either in this Conference, or in subsequent ones, there will have to be an attempt to reach a reasonable measure of labor-management accord upon certain basic issues over which most industrial disputes originate. The task of machinery to be arranged if disputes are generated in ever-increasing numbers.

Most important of such issues is that of the fair determination of wages. There is clear need for reaching agreements at least upon the major factors on which such determinations should rest. It seems evident that if we are ever to hope to reach the high levels set and generally accepted as postwar goals, we must harness economic resources to promote production efficiency. That means that workers, as well as management, must be given a genuine share in increased productivity. No universal formula is possible, but we should be able to agree upon general principles for dividing returns derived from improved performance in output between workers and investors, and consumers in the form of lowered prices. Again, since unionism is here to stay, general accept-

ance by management of the principle of collective bargaining would save innumerable disputes which are concerned more with the method of negotiation than with the concessions sought. Few in management still question the validity of the collective bargaining process as such, but there are many matters to be resolved of which the question of the open shop, the union shop, or the closed shop is merely a conspicuous example, upon which there is wide divergence of conviction between and within labor and management groups.

On the management side, there is sincere concern about the extent or ability of union leaders to exercise responsible control that assures compliance with antitrust legislation. Will-out strikes are of sufficiently frequent occurrence to give substance to this distrust, and union discipline seldom has been administered in a decisive or effective fashion. The prospective rivalry of three competing labor organizations of national scope gives management little confidence that a bargain made and kept in good faith with any one of them provides assurance against work stoppages.

All of these matters, and many others, must show up between management and labor, with the view of arriving at as large a measure of specific and detailed agreement as can be achieved. The greater the area of such agreement, the smaller will be the area for disputes that must be handled by settlement machinery, or put to the final test of force.

Peace or Civil War in Industry

The Labor-Management Conference is of major importance to national welfare. It is important even if it restricts its objectives to the procedural problem of how industrial disputes are to be handled.

It can make an even larger contribution if it lays the groundwork for an attempt to reach working agreements upon such policy issues as have been cited above.

Neither management nor labor can afford to lead anything less than their best intelligence and effort to an attempt to arrive at common understanding. Success will mean that we have a genuine chance of reaching new levels of economic well-being. Failure will mean industrial civil war, in which the casualties will be high. One almost certain casualty of such a war will be the principle of collective bargaining, since the Government can scarcely refrain from establishing compulsory arbitration if sufficient breakdown occurs.

It is to the vital interest of both management and labor to demonstrate that they can responsibly control themselves.



President McGraw-Hill Publishing Co., Inc.

THIS IS THE END OF A SERIES

Railway Express Adjustments Asked By Airlines' Committee

Group believes air carriers have been deprived of sizeable revenue through Agency's power to enforce and interpret contract terms; retroactive income assessment, improvements, thorough reorganization recommended.

Declaring there are grounds for believing the airlines have been deprived of substantial revenue because interpretation of Railway Express Agency contract and enforcement of its terms have been left solely within the Agency's discretion, the Airlines' Committee on Audit Service of REA has adopted formal recommendations to effect equitable adjustments to air express accounts.

Under the present Air Express Agreement, which demands accurate cost accounting, the committee concluded that the airlines have been placed at a disadvantage by the size, complexity, and decentralization of the Agency. Nothing short of a thorough reorganization to achieve precision in accounting and adequate internal controls would make it possible for the Agency to discharge its obligations as the contract provides, the committee said.

Costs Reimbursement.—But, even then, the Airlines' Committee emphasized, a "cost-plus" contract would be undesirable because of the Agency's peculiar freedom from competition, lack of responsibility for profits and losses to its railroad owners and possible expense associated with the cost accounting demanded.

The survey of REA and the study made by the Airlines' Committee (AVIATION NEWS, July 2) indicates there have been errors "large and small" affecting the revenues of the airlines. While the committee said in its report that "nowhere" was there a suggestion of bad faith, it noted that "subordinate personnel, left untrained as to the application of such vague concepts as 'out-of-pocket costs' have actually tended to favor their employer in matters requiring judgment."

The committee said, however, that the airlines were in a position

to take a firm stand, insisting upon both retroactive adjustments and future improvements in accounting and control methods.

New Terms.—"But from a longer viewpoint," the committee continued, "the solution must be found in new contractual terms clarifying the method of computing payments to the agency."

The Airlines' Committee determined its report on REA should be treated as follows:

1) It should be submitted to Air Corps, Inc. with copies to all stockholders. 2) Air Corps, Inc. should be requested to refer all recommendations requiring action to such appropriate committee as may be deemed necessary. 3) These recommendations requiring decisions of policy, together with the conclusions of the committee, should be directed by Air Corps, Inc., to the attention of the directors of the Air Transport Association.

The Committee directed for immediate action the following:

1) Immediate steps should be taken to obtain equitable adjustments to the air express accounts.

2) The committee should be directed to discontinue immediately the uncertainty which exists in connection with the computation of fixed cost-per-hour.

The Agency should be directed to discontinue immediately the uncertainty which exists in the computation of per-shipment costs and then adhere to its own situation.

The Agency should immediately discontinue the uncertainty that exists in connection with the assignment of exclusive vehicles and any formula adopted should be adhered to regardless of the results to either party.

The Agency should discontinue the uncertainty that exists in connection with the breaking point

as between air and rail expense on combination business.

In order to help accomplish the foregoing, REA should establish a Standard Practice Manual for use by all supervisory personnel and other employees in connection with its contract of the air express business.

The Agency should discontinue the practice of charging vehicle costs for clerical work and under no conditions should REA charge the pool with any such expense incurred at the direct request of any airline. Expense in connection with such requests should be assumed by the airline responsible.

The Agency should discontinue the practice of charging vehicle costs for overtime time, school time, meal time, etc.

Refrund practices should be made standard throughout the Agency. A standard policy should be adopted with respect to retroactive adjustments and full disclosure made of all such items.

The Agency's method of reporting gross revenue should be altered and expanded.

The equity of providing expense on between P&H and domestic air express on a shipment basis should be questioned.

The Agency's revenue distribution costs should be revised.

The Agency should take such steps as will result in the establishment and retention of accurate records.

The Agency should take such steps as will result in consistency of policy, improvement of its internal control in general, and permit its accounting department to exercise further control.

The committee also made a number of other recommendations for action after further industry consideration, including a change in the basis of claim apportionment, new methods of revenue allocation, and the reduction of revenue expenditures in expense through the adoption of standardized ratings.

Nashville Airport Bonds

The City of Nashville, Tenn., has sold a \$350,000 airport bond issue to a syndicate headed by Guaranty Trust & Savings Bank, of Chicago, at a split interest rate covering a period of 25 years. The bond was 8 percent on \$15,000 in bonds outstanding in 1930, 14 percent on the remainder expiring in 1949 through 1972.

Allison Modification Unit Fills Four Top Posts

Allison Division of General Motors Corp. has announced four personnel appointments to the Allison Modification Unit. The unit is at the West Coast Aircraft Modification Center in Torrance, Calif., in a building formerly occupied by the Navy.



L. R. Crandall (photo) has been appointed director of the Allison Modification Unit.

War Department Aide Shifts To C & S Post

La. Col. N. Henry Jacobs, until recently special consultant to the Undersecretary of War, has been appointed executive assistant to Carlisle P. Fulkner, president of Chicago and Southern Air Lines.

Fulkner's management said he resigned from the War Department to accept the all-time post, where he will be assigned to special projects, the first dealing with cost control throughout the C & S organization.

Leigh C. Parker, until this week a colonel in the Army Air Forces, is leaving the service to become the new manager of Delta Air Lines. Serving as chief of staff of the Air Transport Command's European Division, Colonel Parker was awarded both the Bronze Star and the Legion of Merit for meritorious service, chiefly in establishing air transport routes in support of military operations in the European and Mediterranean areas. He has been traffic manager of Delta since 1934, and became vice-president and a director in 1939.

Alvin F. Adams, formerly a vice-president and director of the Packard Engine and Airplane Corp., has resigned to devote full time to the management of his personal and corporate interests. Adams' company, Adams and Associates, will serve in

the capacity of West Coast representative of the various activities of Packard. Adams will have with him William C. Macfarlane, well-known mechanical engineer and consultant; A. A. Hoon Hartwick, formerly with the U. S. office of the Royal Dutch Airlines; and Macfarlane Howard, formerly of Consolidated Vultee Aircraft Corp.

L. R. Crandall Named To C-W Directorate

Curtis-Wright Corp. has announced election of Lou H. Crandall as a director. Crandall is president of the George A. Fuller Co., and an officer and director of several other companies. He fills the vacancy on the board created by the recent death of Charles W. Lown, who was vice-president and director.

John R. Hasegawa (photo) has been appointed director of research for



research for the Chrysler Corp. Hasegawa has been chief of applied research for Ford and Whitney Aircraft for the past two years and formerly was chief of the engine laboratory of the Chrysler Corp.

Philip C. Wagner, formerly vice-president of Parks Air Transport, Inc., and secretary-treasurer of Parks Air College, Inc., has resigned those positions. Wagner was director on the board of such organizations and also was on the board of Parks Aircraft Sales & Service, Inc. The announcement did not disclose the executive's future plans.

Cyril C. Thompson, vice-president of public relations for United Air Lines, has resigned Thompson was in the airline business for twenty years and was with United for six years. He was a director of the Airlines War Training Institute, and is a director of the National Aeronautics Association.

Joseph A. McGowan, formerly chief of the Air Transport Division of the Foreign Economic Administration, has joined Moore-McCormack Lines, New York, as head of its international division. McGowan was in the war with the responsibility of the Air Transport Division.



UAL VICE-PRESIDENT

Col. Ray W. Ireland, whose election as vice-president, administrative, of United Air Lines, has been announced. Colonel Ireland will be honorarily discharged as deputy chief of staff, Air Transport Command. He has been on leave from United.

mon of FEA to screen and recommend to the services commercial and civilian government expert and scientific personnel and assign priorities connected with the war effort.

Ted Nigg, formerly a senior manager with American Airlines, and Jerry Martin, former instructor in the air transportation department at the University of Texas, have joined the Packard Aircraft Division, to assist in sales promotion of the C-54 Packard.

PCA announces the following personnel changes: **Maj. Fred C. Klein** (photo), former



instructor, has been appointed PCA regional traffic manager in the Pacific Northwest. On military duty since 1940, Major Klein had been commanding officer of the ATC's regional air promotion office in Pittsburgh. Klein, Col. Melvin C. Garlow, has returned to duty as a PCA pilot and is based in Detroit. James H. Logeman has been named district traffic manager in Cleveland.

W. Gordon Wood has been appointed assistant traffic manager of Trans-Canada Air Lines, with headquarters in Winnipeg. Wood has been an Air Operations Pilot with the Royal Canadian Air Force. He joined TCA, he served with Pan American Airways

Extension Shaft Power Plan Offer New Design Possibilities

Removal of engines from aerodynamic surfaces through use of well tested transmission lines believed answer to many problems facing large plane developments; Allison expects engine offer radically new powerplant installations.

By ALEXANDER MCMURLEY

Transmission of propeller power from liquid-cooled engines submerged in an airplane's wing or fuselage, by means of an extension shaft, appears likely to become increasingly important in large airplane designs of the next few years.

Most interesting recent example of the extension power shaft use is a new design in the Douglas XB-38 "Missaster" bomber and the DC-8 Skybus, commercial version with identical power arrangement.

Engine Plan—These planes use two Allison 1710 engines, mounted

in the fuselage behind the cockpit, in drive counter-rotating propellers at the tail, by means of extension shafting running the length of the airplane (Aviation News, Sept. 17).

By this novel arrangement, the Douglas design eliminates the need for mounting engines in the wings thereby eliminating engine nacelles and permitting the entire wing to maintain a smooth aerodynamically useful surface.

It is estimated that the design saves 25 percent of the total drag factor of the airplane, by making the nacelle unnecessary.

Allison Bid

Extensive new flight testing facilities of Allison Division, General Motors Corp., at Indianapolis municipal airport, indicate that the organization is making a strong bid to hold its place as a leading aircraft engine manufacturer. The new flight test hangar and facilities, on a 48-acre site south of the airport, are directed by Don H. Berlin, head of installation engineering.

Currently, flight tests are being made with the XE-38. Allison-powered version of the B-26 Superfortress. The company has also purchased a two-story B139 bomber for use as a flying test stand for Allison engines. The new facilities may provide opportunity to flight test some of the new engine extension shaft arrangements which company engineers have designed.

Fastest—Radiators for cooling the liquid-cooled Allison engines are mounted in the leading edge of the wings near the root. The bomber version is credited with a top speed of 410 mph, making it the first bomber in the 400-mph class to be announced by the AAF. Engineers of the Allison engine division General Motors Corp., have done considerable experimenting with the use of extension shafts in many arrangements with their engines, all with a view to eliminating drag by submerging the engines at remote locations from the propellers.

Earlier arrangements of Allison powerplants with extension shafts, were found in fighter planes developed by Bell Aircraft Co. the two-engine packer "multi-plane fighter" the XFM-1, Aerobus, and the better known P-39 Airacobra and its later development, the P-63 Kingcobra.

Perfect Record—An interesting sidelight on the experience with shafts in these planes is the report by Allison that, despite the unconventional shaft arrangement, there is no record of any case of shaft failure in any of the hundreds of Bell P-39 and P-63 fighters which were built with the engine buried in the fuselage behind the pilot. An extension shaft ran from the engine through the bottom of the cockpit to a gearbox and propeller in the plane's nose.

The General Motors experimental fighter XP-73, which used the Allison V-3420 engine, also had a



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Two V-3420 engines to drive pusher and tractor propellers



Two V-1710 engines in tandem



V-3420 engine with "right-angle" shafts

similar engine placement and turned a six-blade dual rotation propeller with extension shafting.

Studies by Allison engineers have gone well beyond these developments into combinations of engines, shifting and gear boxes which offer a wide range of flexibility in design.

► The Versum.—Among these are: A tandem arrangement of two V-1710 engines, in which the extension shaft of each engine independently drives one of a pair of counter-rotating propellers through an onboard reduction gear assembly. The combination has the power output of a V-3420 engine, with the advantage of two-engine reliability as it permits full feathering of either propeller and continued operation of the other engine. (See illustration.)

► Another arrangement places the V-3420 engine in the fuselage opposite the wing roots and uses two sets of bevel gears in a horizontal arrangement on the front of the crankcase. Each set of gears carries power from one of the "double" engine's crankshafts. Extension shafts are drawn from both sides of the bevel gear housing and extend out through the wings to reduction gear assemblies. Other shafts carry the power at right angles from the assemblies to propellers mounted either as trimmers or pushers. This arrangement makes the powerplant easily accessible and requires only a slender wing nacelle to accommodate the reduction gear and shaft. (See illustration.)

► Probably most elaborate of the suggested arrangements places two V-3420 units, mounted in opposed positions, presumably in the wing of a large plane, larger than any yet flying. Allison calls this a DV-4400 engine, and it would drive, by extension shafts, two

contra-rotating sets of propeller blades, one pusher and one tractor. Since the V-3420 engine rates more than 3,000-hp, this would make the double arrangement a 6,000-hp power source or, arranged in a pusher-tractor arrangement in each wing, 12,000-hp for the plane. (See illustration.)

There seems no reason why several of these 6,000-hp installations might not be used in the wings of a very large plane, if the power was required. In considering these arrangements it should not be forgotten that Allison is no longer manufacturing the V-3420 engine, which was a military development, and never came into wide-open use. However, the V-3420 engine actually was developed by "putting together" two of the V-1710 engines, and most of the parts were interchangeable between the large and small powerplants, so that in many of the arrangements where one V-3420 engine is used, presumably the arrangement could be altered to use two V-1710 engines, and provide equal power.

It is known that Rolls-Royce, in England, has done some experimenting with liquid-cooled engines in use of extension shafts,

Surplus Storage

Plans for storage and maintenance of surplus items and plans, after averaging disposal have been exempted from prior control by the Office of Price Administration. The arrangement applies to contracts entered into by the Reconstruction Finance Corp. for the storing and forwarding of surplus property. Services under the contracts vary so widely, OPA states, that separate orders would be necessary for each contract.

but it is understood that their experiments have not been as extensive as those by the American company.

New Plane Fuels Hike Engine Rating

Two Marketers introduce new gasolines to permit power boost without adding weight or size.

A new line of aviation gasolines, designed to increase permissible power and lower engine maintenance costs are being introduced by Esso Marketers.

R. C. Certei, manager of aviation sales, Esso Grade 80, designed for the engines of private planes, is a clear gasoline with a full 80 octane rating that is obtained without the addition of tetra ethyl lead.

► Protected Benefits.—This type of fuel, which was unavailable before the war, will reduce top cylinder maintenance, Certei said, and allow designers of small engines to improve performance without increasing engine size and weight. He said it will also provide added protection against detonation for private plane engines now in use that were built to use 72 octane gasoline.

Grades 81 and 100, the gasolines used largely for commercial and military operations possess new qualities heretofore unavailable with higher permissible takeoff power and lowered lead content the prime factors.

Fairchild Camera Plans Non-Aviation Expansion

Fairchild Camera and Instrument Corp., long one of the leading suppliers of cameras and optical military and commercial aviation supplies, intends to develop a large non-aviation business, according to vice-president C. A. Harman.

In an address marking the company's twenty-fifth anniversary, Harman stated that the firm will bring out a complete line of sound equipment for use of radio stations, schools and colleges. Before the war, Fairchild's non-aviation business was purely a sideline. However, Harman said, "It is my belief that we can secure half as much business from this line alone as we secured from all line in the years immediately preceding the war."

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Type WWD Stainless Steel worm drive adjustable worm clamp. Made in right sizes to cover this entire range of applications.



Type FMS Stainless Steel hose clamp. The most widely used hose clamp in the aviation industry. Made in the standard AN 74B size... also additional sizes for special requirements.

Dependability has been recognized by the Wittek Manufacturing Company during its 25 years of hose clamp manufacturing experience as a foremost requirement in any hose clamp design. Wittek secures this dependability by the selection of basically sound designs—the use of high-grade materials and the application of good workmanship. Today Wittek offers two distinctly different hose clamp designs—each of which meets the requirements of Specification AN-ET-C-406 A.

TYPE WWD—an adjustable worm drive hose clamp made of stainless steel and designed to take full advantage of the superior physical properties of that material. Note the compact streamlined housing—the hardened one-piece thumbstuds—PLUS a new exclusive Wittek feature—an inner band of Stainless Steel accomplishing the two-fold purpose: (1) protecting the hose from the abrasion in the outer band, and (2) distributing the load uniformly to provide greater strength and superior sealing characteristics.

TYPE FMS—an improved Stainless Steel version of Wittek's basic FB design—now incorporating a bridge connector—in all sizes. This is the most effective hose clamp for all applications where an adjustable clamp is not necessary.

Hose Clamps for all requirements, made by Wittek—superior in hose clamps and their applications.

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HOSE
CLAMPS

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TAIL WHEEL ASSEMBLY

3-24B

FULL SWIVEL -- STEERABLE

Builders of light airplanes seeking a service-based outfit where assembly will be facilitated in three features of the 4.4-hp-powered Sport Model 2-01E. Simplified automatic attachment features include: headgear, heavy-duty basket, fuselage, wing and assembly. Deep forged steel and full high-strength aluminum sheet wheel castings. Tension ground-purged roller bearings. Full groundable. High-end caps complete. (See on request.)

SPECIFY AS

Standard



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AVIATION CORPORATION

1984年 第1期 第1页
1984年 第1期 第1页
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SPB 'Reserves'

In an attempt to speed up disposal of surplusage, Surplus Property Board has directed disposal agencies to set up reserves to supply priority buyers. Formerly, other customers had to wait for more than 30 days in order that holders of priorities could have first choice.

Quantities of reserves to be maintained will be decided by disposal agencies on the basis of previous experience. Small-*of War Plants Corp.* will assist in determining size of reserves to be held for veterans and small business. Agencies are required to review and adjust reserves periodically to avoid stockpiling.

Luscombe Output Centers At Dallas

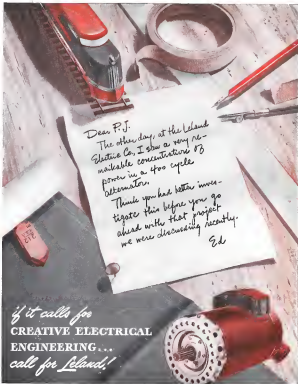
Langston Airplane Corp. has announced plans to concentrate all its airplane manufacturing in its two Dallas, Texas, plants, discontinuing its aircraft activities at Trenton, N. J., where the main plant was formerly located.

631-0000 Places — The company, which won one of four high-price bidders to sell more than 1,000 personal planes before the war, expects to produce 3,000 new planes before the end of this year.

First Lancasters to be produced resemble closely the prewar all-metal Lancaster. Airspeed which in 1940 set a speed record of 115-mph. for planes in its class.

Swedes Tour Air Plants

The commanding general of the Swedish Air Force, Lt Gen B G Nardenskiöld, is making a study of the aircraft industry in this country. Accompanied by Maj Gen. Nils O Söderberg, he is touring AAF installations and production centers as a guest of the air force. Brig Gen Patrick W Timberlake, chief of staff of the U. S. Eighth Air Force, is conducting the 32-day tour.



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NEW HARTWELL PUSHBUTTON LATCH



Waterproof and Airtight

Complete flushness achieved in latest addition to Hartwell line of flush latches

You have to feel twice to see the new Hartwell Pushbutton latch when it is installed. The only exposed parts are the recessed, completely flush, circular trigger button and the handle.

Finger-tip pressure opens and closes the latch! Due to its unusual design, it is water and airtight. The lighter the pressure of either fluids or gases, the tighter the seal.

The toggle action of the latch, assisted by a tension spring, assures a positive lock in either the open or closed position. Though small—a weight approximately 1 oz.—the Pushbutton latch withstands normal loads.

For an absolutely flush surface, solid or painted steel, get the Hartwell Pushbutton latch. Hartwell also makes these ingressive-action, flush latches. Standard, Heavy Duty (1,000 lb. load) and Utility.

Uses for New PB Latch

diverse engine-exposed and access doors that must be either waterproof or airtightness smooth, recessed-galley access doors and baggage compartment doors, even where used in painted cases. *Aviation:* Small hatches, inspection, decontamination doors. *General:* General and inspection plates on processing equipment, junction boxes, metal covers.



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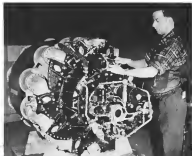
Plant Status

Negotiations for the following large airplane and engine plants are reported, by the construction finance corp., to be in an advanced stage. Listed is original construction cost for plants named.

Aviation Corp. Williamsport, Pa.	\$4,368,000
Consolidated-Yates San Diego, Calif.	\$3,725,000
(2 plants)	1,088,000
Miami Springs, Fla.	\$3,079,000
Albion, Pa.	\$1,111,000
Carlin-Wright Corp. Buffalo, N. Y.	\$7,518,000
St. Louis, Mo.	\$4,904,000
General Motors Corp. Milwaukee Park, Ill.	\$25,434,000
Trenton, N. J.	\$1,999,000
Cleveland, Ohio	\$6,305,000
Indianapolis	\$7,972,000
(2 plants)	1,268,000
Republic Aviation Corp. Farmingdale, N. Y.	\$3,742,000
Wright Aeronautical Corp. Paterson, N. J.	\$5,252,000

Two or more prospective purchasers have expressed interest in the following plants, according to RFC.

American Propeller Corp. Toledo, Ohio	\$12,286,338
Boeing Aircraft Corp. Seattle, N. Y.	\$3,543,360
Boeing Aircraft Co. Wichita, Kans.	\$3,514,078
Carlin-Wright Corp. Columbus, Ohio	\$1,730,298
Indianapolis, Ind.	\$3,081,258
Caldwell, N. J.	\$3,864,883
Kansas, N. Y.	\$3,263,977
Lebanon, Ky.	\$3,943,964
Douglas Aircraft Co. Los Angeles	\$4,014,314
San Francisco	\$7,721,971
(2 plants)	626,578
Republic Aircraft, Inc. New Orleans, La.	\$1,168,432
Republic Aircraft Co. Pittsburgh, Pa.	\$1,917,938
Lockheed Aircraft Corp. North Hollywood	\$3,616,300
(3 plants)	\$7,775,534
North American Aviation, Inc. Kansas City, Kans.	\$4,057,694
Grand Prairie, Tex.	\$3,313,300
Ingalls Corp. Northridge, Cal.	\$3,507,327
Northrop Aircraft, Inc. Hawthorne, Cal.	\$78,178
(2 plants)	4,123,218
Republic Aviation Corp. Riverside, Ind.	\$4,517,436
United Aircraft Corp. Hartford, Conn.	\$2,273,809
(2 plants)	\$55,648
Bridgeport, Conn.	\$1,213,294
Stratford, Conn.	\$1,237,605
Wright Aeronautical Corp. Paterson, N. J.	\$4,702,719



FIREBALL JET POWERPLANT:

This type of General Electric jet propulsion engine turns with a conventional Wright Cyclone in generating power for the Navy's new Ryan Fireball fighter. The technician here is working on a fuel line on the front of the engine. In the Fireball the engine is housed in the fuselage between the cockpit and tail.

Merger Reports Denied

Recurring rumors in the industry and in financial circles of a Carlin-Wright and Lockheed merger have been termed "just rumors" by Guy W. Vaughan, Carlin-Wright president. In making the statement to stockholders, Vaughan reported the company in sound financial position, disclosed that Carlin has a contract for 16 Comanche transports with Eastern Airlines and is negotiating for more business of this type. He indicated that the company has made no plans to enter non-aviation fields. He commented that the present plane market does not seem particularly profitable at this time.

Aero Parts Co. Sold

The Aero Parts Manufacturing Co., of Wichita, Kans., which during the war held major subcontracts with Boeing Co. and Carlin-Wright, has been purchased by the U. S. Challenge Co., Bellevue, Ind., and will be converted to the production of turbo equipment.

Dr. Henry M. Ganssman, president of Challenge and the U. S. Engine and Pump Co., said the Wichita operation will employ 500 at the outset and 2,000 when production

schedules are attained. Operations will begin within 10 days. During the war, Aero Parts employed up to 2,500 persons. It was one of the first companies to be cutback and has been out of operation since last April.

Contract Appeal Chief

New chairman of the Contract Settlement Appeal Board of the Office of Contract Settlement is Edward J. Damsch, New York attorney, editor of the American Bar Association Journal and a member of the faculty of Yale Law School. He succeeds Robert S. Stevens, who has been recalled to his post of dean of the Cornell University Law School.

The board hears appeals from war contractors disputing the findings of contracting agencies in the settlement of terminated war contracts.

Bendix Income Report

Net income of \$10,578,463, or \$4.93 per share, for the nine months ending June 30, 1945, has been reported by Bendix Aviation Corp. The net is slightly less than three percent of sales and other income. For the similar period of the preceding year, Bendix net was \$12,159,468, or \$3.74 a share.

COMMENTARY

Radiation Laboratory Record Forecasts Electronic Advances

War-time success of cooperative scientific enterprise at MIT kept nation ahead in radar research.

"This is a physicist's war."

These words by Dr. James B. Conant, president of Harvard University and one of the top-drawer figures in America's "scientific high command," were not spoken toward the end of the conflict, when millions of men and women, in and out of the armed services, knew something at least of radar, the proximity fuse, atomic energy, rockets, etc.

Foreboding—They were uttered in 1945, shortly after the creation of the Office of Scientific Research and Development of which Dr. Vannevar Bush, former chairman of the National Advisory Committee for Aeronautics, was director. The words fell largely on uncomprehending ears, but it is safe to say that as we go farther into

the new age that is dawning and realize from practical experience some of the wonders of electronics, atomic power, etc., their essential meaning will be more clearly grasped, and the need for this country to maintain an adequate research program more generally appreciated.

One of the most fruitful of the cooperative scientific enterprises in this country, and one which admittedly played a most vital part in the Allied victory, was the Radiation Laboratory, located at, but not a part of, the Massachusetts Institute of Technology, Cambridge.

Star Start—Started in October, 1940, under the aegis of a British scientific mission headed by Sir Henry Tizard, Radiation Lab at

war's end had a budget of \$4,000,000 per month, with a staff of scientists and engineers comprising an estimated 20 percent of the nation's top-rank physicists.

Operating under the general supervision of the Radar Division of the National Defense Research Committee (part of OSRD), Radiation Lab was the Allied spearhead of a huge international cooperative research and development enterprise aimed at providing its fighting forces with the most advanced radar equipment which they required to do an effective job.

This involved not only cooperation with British and American ground, sea and air forces, but with scores of government, university and industrial laboratories, and with a couple of hundred prime manufacturers and thousands of subcontractors which turned out some two billion dollars worth of radar sets based directly on Radiation Laboratory research.

Top Task—Its main assignment and the chief reason for its existence was the development of what was called a radar set, operating in cycles and up, in the ultra-high frequency field.

In the billion-cycles-per-second range it had been found that the radio pulses being used by most radars were highly concentrated, the returning "echo" much more clear and the resolution much more exact and distinctive.

At the start of the war nearly all the great nations had a certain amount of cavity, long-wave radar, but what kept the Allies so far ahead of their enemies was the development of microwave radar, the practicability of which was largely based on the British-developed cavity magnetron, brought over in the summer of 1940 by NDRAC's "Microwave Radar Committee," of which Alfred L. Loewy was chairman. A few weeks after the British war, this committee blossomed out into the Radiation Laboratory, and Dr. Lee A. DuBridge, Professor of Physics and Dean of the Faculty at the University of Rochester, was selected director.

Radar Role—This is the general background to be considered in connection with the development of almost any of more than 100 types of radar equipment used during the war, many of which can perform highly useful and in some cases almost revolutionary peacetime functions. —NAVIGATOR



Laboratory Warriors: Three of the men who played important parts in creating and winning the "physicist's war" are shown above at the Radiation Laboratory at MIT. E. O. Brown (center), member of a British scientific mission which brought the first cavity magnetron, heart of many new radar developments, to the laboratory in 1940, is being shown an American built copy by Radiation Lab Director Lee A. DuBridge, left, and Assistant Director I. I. Bab, Nobel Prize winner.

Marquette Aircraft Wipers

For Clear Vision

● Pilots and co-pilots of our Army and Navy aircraft, as well as our airlines, fly behind Marquette Aircraft Wipers. Today these wipers are considered standard equipment. Their contribution toward safe flying is acknowledged.

While automobiles have had windshield wipers for years—and who would think of driving without them?—the advent of aircraft wipers has been recent.

It was first thought wipers could not be applied to aircraft. Many airplane windshields are

covered, suspended as compared to the automobile, and for many other reasons, plenty of doubt existed.

Now that doubt has been eliminated. Our wipers, both hydraulic and electric types, prove every day their value in hazardous weather. They are in use all over the world.

These wipers, initiated prior to the war at the request of our commercial airlines, will again be available for commercial installations after the war.

On Army Aircraft

C-49	C-57	A-24	B-17
C-57	A-20	A-20	B-24
C-53	A-24	B-18	B-29
C-46	A-28	B-14	B-32
C-54	A-24	B-15	B-19
C-48	A-29	B-14	

On Navy Aircraft

F4U	P-51	B-25	B-26
P-51	P-51	P-51	P-51
P-51	B-25	B-25	P-51

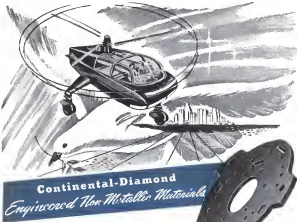
On Airlines

All American Airlines, Inc.	Island Air Lines, Inc.
American Airlines, Inc.	Mid-Continent Airlines, Inc.
American Export Airlines, Inc.	National Airlines, Inc.
Boeing Air Lines, Inc.	Northwest Airlines, Inc.
Chicago and Southern Air Lines, Inc.	Northwest Air Lines, Inc.
Colonial Airlines, Inc.	Pan American Airways, Inc.
Continental Air Lines, Inc.	Pan American Overseas Airways, Inc.
Dallas Air Corporation	Transcontinental & Western Air, Inc.
Eastern Air Lines, Inc.	United Air Lines, Inc.
Frontier, Inc.	Western Air Lines, Inc.
Howard Air Lines Limited	

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Continental-Diamond Engineered Non-Metallic Materials

The DILECTO pictured here illustrated is a motor fly on several insulator units. It is not of course here high dielectric properties. It must also be strong enough to support normal carrying parts, and not delaminate from vibration and impact shock. Its dielectric properties must be stable regardless of temperature, humidity or dryness. Finally it had to be made from a material that could be accurately protected. DILECTO met all these requirements with a wide margin of safety.

C-D PRODUCTS

The Plastic
DILECTO—A Laminated Phenolic.
GUMPH—A Molten Phenolic.
MUCRON—A Pure Resin Plastic.
Especially suited to U-H-E
Insulation.
NATON—Plastic Chemical Equipment, Pipes, Valves and Fittings.

The Non-Metallics
RAMOND Vulcanized Rubber
VACOR—Semi-Integrated
Vulcanized Fibre.

**MICRON—Textile Fibre
Reinforced Insulation.**

Standard and Special Forms
Available as Rods, Tubes, and Pipes.
Reinforced, Formed, or
Moulded to Specifications.

Descriptive Literature

Delivered GE gives Comprehensive Data on all C-D Products. Individual Catalogs are also available.

There are many grades of DILECTO. Each developed to meet specific electrical, mechanical, chemical or thermal problems. Special grades can be developed to meet unusual problems. DILECTO is also available in combination with Diamond Fibre to still further enlarge its sphere of usefulness. This C-D NON-Metallic may be the answer to your "What Material?" problem, in your present and future products, whether used in the air, on land or sea.

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PRIVATE FLYING

Potential Lightplane Sale Bar Seen In Financing Limitations

Federal Reserve Board regulation prohibits application of trade-in allowance toward down payment on planes but allows it for automobiles; forthcoming availability of personal aircraft centers industry attention on needed revisions.

By WILLIAM KROGER

With many of the production problems overcome, and new aircraft well underway, lightplane manufacturers are beginning to express concern over another potential bar to widespread sales: Regulation W of the Federal Reserve Board, which controls consumer credit.

The regulation was originally issued in August, 1941, but amended the following Spring when there were few airplanes going into the civilian market. Under it, purchase of an airplane of less than 1,000-lb useful load must be financed with one-third of the price down, the balance payable in not more than 12 months. A trade-in cannot be applied toward the down payment.

► Meaning: Accordingly, the value of the trade-in is first deducted from the purchase price, and the down payment is one-third of the remainder. In practice, this means the buyer is paying considerably more than one-third down. For example, if the price of an airplane is \$2,000, and the trade-in allowance \$500, the down payment must be \$400, or one-third of \$1,500. But actually, the purchaser, by putting on his old airplane, is paying \$1,200 down.

By contrast, trade-in allowances of automobiles can be part of the down payment under Regulation W. If that were true for aircraft, the \$500 allowance used in the example above would be ample to cover the down payment. Another discrepancy in Regulation W is that maximum time for payment for automobiles is 18 months, as against 12 for aircraft.

While the war was in progress, little attention was paid to Regulation W, due to the lack of planes to sell. Now, however, the forthcoming availability of new planes is focusing attention on the trade-in aspect.

► Surplus Factor: There have been approximately 12,000 surplus airplanes sold, the majority in the lightplane category. Presumably, a great many purchasers of these planes to use them as trade-ins on new aircraft. General feeling is

that Regulation W will have a restraining effect.

Federal Reserve Board maintains it does not want to stop the sale of any commodity, and in the past has moved promptly when its regulations seemed to pose an obstacle. Last July, it exempted from control all aircraft above the 1,000-lb useful load classification to pave the way for sales of transport planes and the larger types of military aircraft.

Federal Reserve sources unofficially indicate that all aircraft may be removed from Regulation W control after the first of the year.

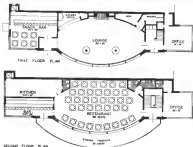
► Headling Issue: The entire financing problem for lightplane purchasers is hazy. Manufacturers in general are shoveling themselves from it, and leaving it up to their distributors and dealers, although furnishing information on the plans available. Similarly,



CUSTOMER APPEAL:

For roominess, ease of entrance, and other customer appeal requirements lacking in many of today's personal planes, the experimental Piper Skipwag, whose production future is still clouded, offers some jerrybuilt design pointers. Above: Wide doors on both sides permit entrance from ground level without undue contortions. Below: Instrument panel with easy-to-read automobile-type dials, starter button, trim-knob attached to wheel, has eye-appeal and makes the plane easier to fly.





Architect's drawing and floor plans of Robinson aviation building to be built at Teterboro Airport.

many producers feel the trade-in problem is one for distributor-dealer determination.

Complicating the picture is the lack of standard valuation on used aircraft—the reason given by the Federal Reserve Board for its original ban on the use of trade-in allowances for down payments. There is a "blue book" guide to aircraft prices, but the extent of its use is indeterminate.

An additional factor is that while there is broad agreement on the "one-third down, balance in 12 months" formula for new air-

craft, the down payment runs considerably higher for used aircraft, often up to 50 percent. One fact responsible for this is that all chattel mortgages carry credit insurance, and insurance on the principal sum is a used aircraft purchase generally becomes prohibitive when the amount of the loan exceeds 50 percent of the purchase price.

Top Canadian Air Club Buys 14 Tiger Moths

The Toronto Flying Club, one of the Dominion's largest private flying organizations before the war, has turned to purchase of surplus military planes as a solution to its equipment problem despite the loosening watchfulness of new lightplanes. Latest purchase by the club was of 14 De Havilland Tiger Moths.

Future plans of the group call for purchase of three surplus Cessna Cruisers, two-engine transports. Purchases are made through the Royal Canadian Flying Clubs Association which buys from the

government's War Assets Corporation and resells to the 32 Canadian clubs after getting the ships into flying condition. Price is cost plus overhaul charges.

Field Expanding As N. Y. "Portal"

Robinson Aviation moves to Teterboro airport; full private flying facilities planned for metropolitan-based pilots.

A major move in expanding the Teterboro Airport, Teterboro, N. J., into a personal aviation "portal" for New York City, took shape last week as Robinson Aviation, Inc., revealed plans for a private flying base there with terminal facilities that teach every need of the individual pilot and non-scheduled operation.

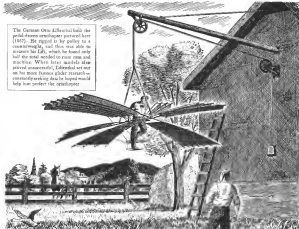
According to C. S. Robinson, president, the entire operations of the aviation enterprises bearing his name, will be moved to the field where the former Fokker Aircraft factory has been leased for maintenance and storage space.

Varied Features—A modern expansion building will highlight new construction planned. Included will be terminal facilities for the recently formed Robinson airline; providing non-stop flights to New York service, accommodations for other private plane pilots and their passengers, a pilot lounge for visiting pilots and those based at the field.

Special attention will be paid the needs of metropolitan pilots, expected to use aircraft as a fast, convenient method of transportation to Gotham appointments. With the heart of New York City only a half hour from the field, by car through the Lincoln Tunnel, a steady taxi service will be maintained by agreement with a local company.

Stenographic and telephone facilities will be made available for the flying businessmen at the terminal while a restaurant and snack bar will top off the conveniences. Limited service will start in November prior to full operation upon completion of the construction plans.

Route Conveiences—The airport is located so that planes flying from any section of the country, except due east from Long Island, can reach it without passing over the "skyceptor" area of New York and without plotting cir-



The German Otto Lilienthal built the pulley-driven contraption pictured here (1897). He rigged it by pulley to a counterweight, and this was able to measure his lift, which he found only half the weight needed to raise man and machine. When later models also proved inaccurate, Lilienthal set out on his more famous glider research—eventually seeking data he hoped would help him perfect the aeroplane.

In a barnyard, LILIENTHAL LEARNED HOW TO MEASURE THE LIFT OF WINGS

In aviation there is a battle not yet finished. It is man's struggle to increase the useful force of air around a wing, and to reduce the friction of air against a plane's surfaces. It is the continuing battle of Lift versus Drag.

During the past twenty years, the victor in this battle has been man, a notable number scored by Northrop. Toward Drag reduction, for example, Northrop patented the monocoque fuselage in 1927. Midwifed, internally-braced wings and wing fillets for monoplane came from Northrop in 1928. And, in 1932, Northrop introduced the first split

flaps to increase lift in take-offs and landings.

The years 1935 to 1941 brought other Northrop advancements: The first double-split dive flaps . . . before wedding of magnesium for lighter, smoother construction . . . the first retractable ailerons. And the first successful all-wing airplane, the Northrop Flying Wing, which housed everything inside the wing.

What next in the battle of Lift versus Drag? Many of the answers will come from Northrop, from plans already set to create both more efficient propulsion and planes of still more advanced design. Northrop Aircraft, Inc., Northrop Field, Hawthorne, Calif.



NORTHROP

Creators and Builders of the *Black Widow* P-61 Night Fighter and the *Flying Wing*



Air Delivery At Deadwood Dam Johnson Flying Service of Missoula, Mont., the only bidder, again has been awarded the government contract to make three-to-month air deliveries of food and mail to snowbound Ole Overlie, superintendent of Deadwood Dam, Idaho (left). In previous years Penn Stehr (right), known as a "mercy flyer" in the Northwest, made the deliveries for Johnson, but he has been transferred, and Bill Yaley and Bob Fogg, other Johnson flyers, are expected to make the delivery next this year.

caution courses. Located inland, it is less affected by sea fog and is free of the smoke haze prevalent over the metropolis.

Part of the leased plant space will also be used for the manufacture of Robinson V-helicopters, floats and other accessories.

Object of the new effort is to "use to it that those people who take up private flying and buy airplanes will remain permanent customers of aviation and will not, as in the past, give up flying after one or two years due to inadequate types of service available."

Snowbound Post Served By Plane

Ole Overlie, superintendent of Deadwood Dam, 150 miles northwest of Boise, Idaho, near the center of the Cascade Mountains' most primitive area, will get his groceries and mail by air again this winter.

Award of the air delivery contract to Johnson Flying Service, of Missoula, Mont., the only bidder, and the previous contractor, has been announced by the Department of Interior Bureau of Reclamation.

Johnson—Overlie and his wife are isolated at the reservoir throughout the winter except for the semi-monthly plane deliveries of mail and food, and his short-wave radio communication with other Bureau of Reclamation stations.

The aerial delivery is no easy

job, since it calls for setting the plane down on a small strip at the edge of the lake or with skis on the lake itself, when it is frozen. In past years, Penn Stehr, known as a "mercy flyer" in the Northwest, handled the contract for Johnson, and sometimes dropped food and mail by parachute when thawing conditions made ski landings impossible.

This year Bill Yaley and Bob Fogg, Johnson pilots, will perform the delivery service. Stehr has been transferred. Before plane

Storm Recovery

Sixty hours after most of the private planes in the Blaine, Fla., area were destroyed by fire at the hurricane-blazed Richmond naval base, where homes had been offered, flight training was resumed at Chaplain Field, Navy-Middle base.

Two planes which had remained in a Chaplain Field hangar and miraculously escaped serious damage, were being used. Plans explained that the planes were flown into the field four days after the Sept. 15 disaster and others are followed.

Loss—Embry-Riddle reported its pilots alone had flown 32 company, 22 privately owned, and 48 government surplus planes to the Richmond airbase where hundreds of light-cases were destroyed in the hurricane and subsequent blaze.

service was started, Overlie used to get his supplies by dog team delivery. He is usually snowbound at the reservoir for about seven months, and has been at the dam 12 winters. He is stationed there to keep the gatehouse for the 160-foot high dam from freezing, and in the summer regulates the flow of water from the reservoir, for irrigation.

Kentucky Aviation Shaken By Dispute

A complete change in the aeronautics set up in Kentucky has resulted from a dispute between Gov. Reuben S. Wells and the State Aeronautics Commission, over its funds for promotion of aviation.

The argument began when Albert Neer, commission secretary, and Carl Ulrich, director of aeronautics, charged they received only evasion and vague promises from the governor in response to urging that he grant \$20,973 from his emergency fund. In answer, Wells fired the entire commission. Ulrich, an opponent of the commission, resigned.

At Airport Key—Focal point of discussion is the airport situation in Kentucky. With only 23 airports in the state, no of the first of this year—seven of which were used by the Army, Navy, or Civil—Kentucky ranked last in the nation from standpoint of landing facilities per area and population.

Ulrich asserted he wanted the emergency funds to plan increased airports, and claimed the action to get them gave the commission "little hope of getting federal funds for state aviation promotion." In rebuttal, the governor pointed out that federal funds are not yet available and that in addition he had no legal authority to grant the money requested.

Goodyear Club Grows

Goodyear Aircraft Corp.'s "Wingfoot Flyers Club" now comprises all but two of the company executives and department heads, with D. L. C. Hatch, chief of the hospital staff, recently becoming the 37th member to solo. Eight others are taking flight instruction.

The club, composed of Goodyear personnel, owns six planes: Cub, Luscombe, Taylorcraft, Ercoupe, Stinson 108 and a Fairchild. A new hangar for the planes is nearing completion at the Akron airport.

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First New *Ercoupe* Delivered; Performance Boosts Announced

Immediate sales seen limited only by production as orders pour in; top speed raised to 122-mph. with 75-hp. engine; footbrake installation, electric starter increase ground handling ease.

The first post-war *Ercoupe*, complete with 75-hp engine, electric starter, footbrake, improved landing, and other modifications, but still essentially the same airplane as its pre-war counterpart, was shipped from the assembly line at Riverdale, Md., last week.

It was flown by Fulton H. Moore, Chicago manager for Parks Aircraft Sales and Service, to Chicago, for delivery to Marshall Field & Co., where it will be displayed in the store's new aviation department.

Speed Hike—New specifications announced for the *Ercoupe*, show that the increase of 10-hp. in the powerplant has increased the cruising speed from the pre-war 100 to 110-mph. and the top speed from the pre-war 117 to 122-mph.

Rate of climb on the new plane is 750-ft. per minute as against 700-ft. on the pre-war model, and service ceiling has been boosted to 14,000 ft. from 13,000-ft.

Useful load is now quoted at 110-lbs. as opposed to 55 in the

pre-war model, due to the extra weight of engine, starter and gear, so that gross weight remains the same as pre-war, 1,360-lbs. Cruising range drops 10 miles, to an even 500 miles, also due presumably to the extra weight. But since it is generally agreed that a 500 mile trip is as much as most lightplane pilots will want to undertake without a stop, this change is not important.

Ground Aid—The footbrake installation, in approximately the same location on the cockpit floor as a footbrake would be in a car, is expected to provide additional ease in ground handling. And, it is in addition to the hand parking brake which remains just below the throttle at the bottom of the instrument panel, as on the pre-war plane.

The tricycle landing gear with steerable nosewheel, spigoted characteristics, excellent visibility and all-metal structure, of the pre-war plane remain unchanged.

One other change in the *Ercoupe* is a redesign of the canopy, to re-

duce visibility but to make it more efficient in operation and provide more protection against the sun by use of tinted transparent panels. Three sliding panels are now used instead of two in the canopy opening.

Sale Boosted—With *Ercoupe* orders accompanied by cash payments already reportedly tapping the 10,000 mark, and with department stores and advertising companies running in New York and Chicago, as well as a dealer of information performed after automobile merchandising lines, the *Ercoupe*'s sales for many months to come may well be limited only by the quantities that can be produced.

Military Schools Adopt Air Courses

Kennel academy joins CAP in novel air course training plan; new institution teaches civil flying.

Emphasis on aviation education in primary and secondary schools has picked up impetus in the new academic year, with some states being placed on military aviation courses, as well as civilian flight training.

An example of the former is St. John's Military Academy, Salina, Kans., which has joined the Civil Air Patrol, and launched aviation training under the direction of members of the AAF. Col. J. Howard Wilson, Kennel wing commander of CAP, and Col. R. L. Clem, superintendent of the military school, announced the school course has been formed into a CAP cadet squadron, with 96 of the school's 180 students eligible to participate.

Concept Change—The new program means a change in the school's concept from an industry school to an air corps academy. Maj. Fred Spencer, director of ground training at Smoky Hill Army Base, Salina, has been named coordinator of education at St. John's.

On the aviation phases of air education, a departure from previous forms of aviation teaching is being seen in the establishment of the Air Academy at Annapolis, Md., where the Air Academy, Navy Beach, N. E. White, who, too, is a military school, with the students wearing uniforms adapted from those of the AAF, it will specialize in civil aviation.

Although a college preparatory school, the Academy will concen-

trate on aeronautical subjects in all four years. In the first year, a student will study, among other subjects, air geography. In the second year, courses will include study of the civil air regulations. Meteorology and various phases of aeronautical science are to be taught in the upper grades.

The new school got off to a "flying start" with students being flown by airline from New York City.

Shoe Firm's Plane Saves Money, Time

Plans to buy a larger plane in addition to the Cessna Bobcat three-passenger, two-engine plane recently purchased, are being studied by the Freeman Shoe Corp., Belmont, Wis., as a result of time savings accomplished by the plane in making emergency trips.

R. E. Freeman, company president, reported that, heretofore, company executives had been unable to make many needed trips for conferences with dealers or salesmen because of the travel time consumed.

Usage Proof—Since the purchase of the Cessna, from military surplus, and its conversion as an executive plane, the time saving factor provided has been beyond expectations.

Addition of a second plane is expected to make it possible to increase still further the range and speed of the company's executive travel to marketing points throughout the country.

The Freeman executive plane experience is indicative of one of the most under-used markets for non-commercial transport planes in the immediate post-war period. Business utility of privately-owned or company-owned planes is expected to make them plentiful soon after such planes are back on the market in larger quantities.

Mountain AAF Base Opening To Civilians

Mid-high Bishop, Calif., Army army zone may be opened to private flyers and give apartment from San Francisco to San Diego air access to some of the finest hunting and fishing grounds of the high Sierra range.

Highways are in hand and land, built for high-altitude emergency landings of heavy bombers.

Chits Allowed—Army objections



"Shoe" Plane: A five-place Cessna Bobcat, purchased by the Freeman Shoe Corp., Belmont, Wis., from military surplus, has been converted for saving time in the company, according to R. E. Freeman, president. Left to right: Fred Housholder, (photo), A. W. Collins, R. E. Freeman, R. T. Gory and R. E. Freeman, company executives.

to opening the field to private flyers, which last week, under the prodding of Congressmen Clegg and as a result the runway have been opened to the Eastern Sierra Flying Club and the Inyo-Mono Soaring Association. Glider enthusiasts believe the one may prove to be one of the best in the country for thermal soaring, and may attempt to bring to Bishop a national soaring contest. Previous national soaring contests have been held at Elmore, N. Y.

Air Contest Staff Enlarged By NAA

In anticipation of an increase in attempts to establish new aviation records, and also in view of the new assumption of the leading air meets, the Council of the National Aeronautic Association is recruiting new timers and officials.

As United States representative of the Federation Aeronautique Internationale, the world governing body of aviation, NAA supervises all attempts in this country to set new official national or international records.

Delegations—Pre-war staff of Contest Board officials numbered approximately 70. Many are either still in the armed forces or unavailable for other reasons, so the number has dropped to 36.

Under the chairmanship of Dr. George W. Lewis, of the National Advisory Committee for Aeronautics, the board has begun to recruit qualifications for its new personnel. The board expects to be a knowledge of FAA regulations, knowledge of installing and removing the necessary instruments and other devices placed in aircraft before record trials, knowledge of how to use the instruments employed in timing.

CPTP Resumption In Balance Now

Resumption of the CAA's Civilian Pilot Training Program will depend on the fate of a request for \$2,350,000 appropriation to cover the program's costs during the first six months of 1946. The request was submitted last week to the Bureau of the Budget.

As outlined, the post-war CPTP would follow essentially the power plan under which the Federal Government financed training of flight students recruited through educational institutions, with the actual flight training provided by aircraft base operators under government contracts.

Feasibility—If the program is approved by Congress it is expected to make possible the training up to private pilot status, of approximately 15,000 student pilots.

The plan is set up under the same pie-war arrangement of a Federal grant of 70 percent of the flight training cost, with the remaining 30 percent being paid by the individual student and the sponsoring educational institution. The request is limited to six months because of the expiration of authorization for the program expires June 30, 1946.

CAA officials are eager to get the program reauthorized as soon as possible, since it is believed that the program will have its best opportunity for continuing, if it is a going concern at the time the question of its reauthorization comes up before Congress.

Support—Aviation industry interests and backers of all plans for national defense are expected to give full support to the reauthorization of the program before Congress, in view of the record of CPTP success and later War Training Service trainees in the AAF and naval aviation.



Reo Officials: These key officials of the Engineering & Research Corp., Riverdale, Md., start Fulton (Shoreline) Moore, on his way to Chicago with the first post-war Ercoupe. Moore, Chicago manager for Parks Aircraft Sales & Service, Ercoupe midwestern distributor, flew the plane to deliver it to Marshall Field & Co., for display in the store's new aviation department store. Left to right: George Ryan, newly appointed vice-president in charge of sales; Moore (in plane); A. W. Collins, Ercoupe president; and Fred E. Wenz, vice-president in charge of engineering.

Aerial Hookup: Possibilities for emergency landing stations or "backyard" landings for lightplanes are seen in the AAF's Rescuable cable system for "landing" Grasshopper liaison planes, shown here in a Wright Field demonstration.

A "Buck Rogers" method for landing lightplanes by hooking them on overhead cables while in flight, disclosed at Wright Field, Ohio, by the Air Technical Service Command, has interesting future possibilities for civilian use.

Emergency landing stations in spots where even a small landing strip would be impossible or prohibitive in expense, or even "backyard landings" in places too small for orthodox landing methods would be logical future develop-

► **Jungle-Born**—Known as the Brede system, the new cable landing procedure was developed to permit liaison planes to land in jungle areas or other spots, otherwise inaccessible for airplane landings.

Resembling in some respects the arresting gear method of landing aircraft on carriers, and still more the method of "hooking on" Navy fighters to dirigibles which was done in the early 1930's, the procedure requires a hook built into the top of the plane's structure.

Pilot of the plane makes contact with a trolley arrangement on the cable with his plane's hook, while flying at slow speed, and the plane is quickly brought to a halt and angled down the trolley to the ground. AAF technicians say planes can take off from the cable arrangement with equal ease.

WHICH WAY, HERBERT?—A light plane, figured in the capture of a crotch of auto thieves recently, near Claydon, N. M. John Wheatley, of Clayton, took off in his Taylorcraft with the sheriff, to pursue three car thieves who had stolen an hour's start. Wheatley soon passed the spending car but maintained altitude to avoid suspicion and flew several miles ahead along the road, and landed on the open range. The rest of the story follows the orthodox pattern: the sheriff killed the car thieves in the highway and took them into custody.

REOPEN AIR COUNTRY CLUB—Aviation Country Club, near Hicksville, L. I., one of the first and most successful aviation sport centers in this country, which has been closed during the war, is preparing to reopen. Howard Gundry has been named as manager of the country club's affairs. Gundry was formerly secretary of Glides Aviation, which operated the field pre-war. Founded in 1923, the Long Island club was one of the first aviation organizations which offered its members such facilities as a swimming pool, tennis courts, dining room, taproom, and limited hotel room accommodations.

FLYAWAY CLUB—Piper Aircraft Corp. is studying possibilities of starting a Flyaway Club among private pilots throughout the country. Members would agree to ferry planes from the Lockhaven, Penna., plant to various distribution points in exchange for the cross-country flights and experience gained, and expense money. Membership would be limited to pilots with sufficient experience to be capable of handling the planes under all ordinary conditions. The plan would be an outgrowth of, and supplementary to, the Employees Ferrying Clubs now operated by the Piper company.

NOISE MUFFLER—Reduction of noise factor in private flying, admittedly one of the most serious drawbacks to greater public acceptance, is expected to be one of the first projects to be investigated by the National Advisory Committee for Aeronautics as a result of the tour which Grover Loening, NACA consultant, is making among personal plane manufacturers. Loening, flying a Stearman Vesper, has already visited many of the plants, and will prepare a special report on his recommendations for NACA technical studies to improve personal aircraft, as his return to Washington.

FIVE SEATERS—Republic Aviation Corp. hopes to have its first five "Seahawk" amphibious (revised model) sent on display among its distributors and dealers somewhere this fall. But it does not plan to make any deliveries for customers until next spring. Meanwhile, the company is tailing for an even larger order. The company says it had first scheduled as a result of the large flow of orders from individual customers and fleet dealers and distributors. The revised "Seahawk," with 102-hp. engine and with wider cabin providing more comfort and room for its back-seat passengers, will still sell for just below \$4,000 as was originally announced. The actual unit probably will be about \$3,900.

Following closely after the Florida naval airbase fire which destroyed many private planes, a fire in the municipal airport has

247 at Wichita, Kansas, last week destroyed 30 planes and the hangar, for an estimated damage toll of \$500,000. Twenty-five of the planes were privately owned.

INSTRUMENT FLIGHT TREND

Industry, CAA officials assert rising proportion of instrument approaches will force nationwide addition of new "bad weather" fields; total effectiveness of revolutionary all-weather techniques believed dependent upon action.

Instrument approach—The instrument approach procedure was developed in the late 1930s and early 1940s. It was developed to allow pilots to land at airports with no visual aids, such as lights or fog signals, and to land in conditions of low visibility. The instrument approach procedure was developed to allow pilots to land at airports with no visual aids, such as lights or fog signals, and to land in conditions of low visibility.

includes Baltimore, Md.; Richmond, and Henrico, Va., and other points. Flights in bad weather, however, know in advance that other trips are stacked ahead of them at destination, so many speed their delay time on the ground before the start. If that were accounted for, the sea-

INSTRUMENT APPROACHES

ARMY	Airline	Army	Navy	Un- known	TOTAL	Airline	Army	Navy	Un- known	TOTAL
Albuquerque	22	81	15	3	121	352	126	12	0	1 58
Anaconda	40	79	18	4	141	241	246	15	14	2 58
Anchorage	1	0	0	2	113	21	145	0	0	9 11
Albany	364	334	13	1	111	7	813	27	0	9 11
Albany	191	0	0	0	244	156	175	22	0	0 31
Albany	1	146	1	0	10	40	0	0	0	30 32
Albany	726	100	13	6	253	2 11	0 54	0	0	0 58
Albany	338	27	13	0	261	2 48	1 10	0	0	7 48
Albany	44	13	0	0	3	12	38	0	0	0 38
Albany	0	11	1	1	163	1 95	1 14	0	0	10 30
Albany	0	0	0	0	1	12	0	0	0	1 22
Albany	163	27	21	4	213	10 90	17 84	1 22	0	29 13
Albany	0	5	0	0	3	0	0	0	0	0 30
Albany	46	52	3	0	10	28	0	0	0	5 43
Albany	35	263	5	0	79	0	0	0	0	80
Albany	248	294	234	1	611	10 11	18 12	12 38	0	42 29
Albany	147	8	0	0	236	8 42	0	0	0	0 42
Albany	4	2	2	5	0	0	0	0	0	0 46
Albany	65	27	0	0	90	13 13	0	0	0	21 10
Albany	228	156	16	13	40	333 00	1 17	0	0	123 39
Albany	226	951	204	0	121	41	10 34	16 34	0	27 32
Albany	44	38	0	0	612	0	1 11	0	0	0 12
Albany	15	20	4	1	53	39	38	0	0	8 36
Albany	11	167	17	29	304	453	1 17	3 4	1 13	8 31
Albany	117	199	36	0	1	1 38	2	0	0	2 39
Albany	198	114	128	5	642	20 94	8 26	3 16	0	42 12
TOTAL	3490	1235	554	97	6534	189 45	40 05	4 27	366 16	

tion's local-range approach system, VHF radio in communications, speedy teletype ground lines, and radar for terminal traffic control, will be effective. But, in the opinion of CAA and some airline traffic men, they will not obviate the need for "bad weather" flights.

This means that extra investment will be necessary in fields that will be needed over and above those required to handle expansion. Bad weather prevails only a small portion of the time in most regions, and it is hoped a way can be found to utilize such standby ports when they are not needed for instrument approaches.

Hervey Low, manager of Washington's National Airport, stated recently that instrumental control is needed there about 30 percent of the time and that the Capital should have two more airfields to handle its traffic in bad weather, even though the present pool could take double its present load in fair weather. (Arlington News, May 14). National Airport is owned and operated by the government. Its government to officials.

ture would be five to 10 times worse than it appears here. Also, July has better than average weather. These figures do not reflect CAA's new instrument approach system, which thus far is used only by the military, the airlines not as yet having their airborne equipment.



Instrument Increases: This curve, produced from CAA data, shows the increase in number of instrument approaches at fields within the U. S., beginning in 1943. From the trend to the end of 1947, the curve is based on statistics. It includes military, scheduled and non-scheduled flight. Increase in civil aviation will more than offset the decline in military operations, but the rate continues through the indefinite future, though at a more moderate rate than in 1943-1944.

observation, and probably will serve as a traffic laboratory.

Schedule 'Ceiling':Main result of stacking is low schedule performance and loss of patrons. It puts a ceiling on reliability of air services. It is believed that the imposed ceiling soon to be in use, plus extra airports, will result in only 100 percent schedule performance. But the cost, especially of the airports, and the problem of surface tension between them, is not an attractive picture at this time.

Bad weather fields should not be "sterile" fields, says CAA spokesmen. These should be used for changing the destination of planes in flight.

Not only the weather but current trends back to convenience scheduling (to please passengers who nearly all want to leave, on New York-Chicago for example, at 8 p. m.) will aggravate stacking. If schedules could be scattered all around the clock, the problem would be much eased—but they couldn't. Contributing to the terminal jams will be the faster planes of a few months hence.

Phase Five:One partial remedy not much discussed thus far is big airplanes. Doubling the size of the airplanes, for example, would halve the number of traffic movements (departures figure impor-

tantly in total delays). Thus the need of frequent trips with smaller planes may have to be re-evaluated as many routes.

The experts get a glum in their eyes when they talk about radar. They want traffic controllers to be able to see those arriving and departing craft in the "soup," pilots can report their positions only with reference to the venerable electronic faces they pass, and that's not good enough. Location with radio compass is not fast enough for approach procedure. Technicians say they probably soon can give the towers equipment with which they can scan a 36-mile radius.

Chances are that airborne radar will soon only a frontal segment, for a while, possibly also downward for true altitude. Universal coverage seems farther in the future, due to weight and cost. Some of the bolder observers theorize that with adequate radar, airplanes can go anywhere, without much traffic control, but these responsible for safety are more cautious.

Time Saver:Radio VHF communications will be a big time-saver too. Much repetition of messages on low frequency, due to static, wastes time. Time used by persons working in the control procedure is what stacks the planes.

The automatic teletype for ground line communication can make multiple simultaneous messages, and is many times faster than human hands and voices. It will eliminate most of the delays that have bottlenecked surface

communications on heavy routes. Automatic position reporting probably can be accomplished in the early future. Electronic faces can be spaced all along a route.

As the plane first through them, a transmitter is activated by a code for each position, which is automatically sent to the base and automatically posted. Such a gadget can also give a speed readout, and make calculations on past averages.

New Bight:With equipment now in sight, CAA hopes that 100 to 150 airplanes can be put over the Atlantic in a single hour. At speed calculations on past averages will be taken to meet the need.

Industry Meetings On Air Policy Set

Unended policy of Chicago policy to get manufacturers' consideration with emphasis on airworthiness requirements.

Plans are being made for industry conferences in Washington at which representatives of various phases of aviation will discuss matters of basic U. S. air policy. The first of these is at least planned for the national Civil Aviation Conference at Chicago, and dealing particularly with such technical items as airworthiness requirements.

U. S. representatives on the airworthiness requirements section, meeting of the Air Navigation Committee of the Provisional International Civil Aviation Organization, now meeting at Montreal, a Chairman of Civil Aviation Administration's flight engineering division. The first sub-committee meeting on Chicago document dealing with technical aspects of U. S. airworthiness requirements, probably will be held at Montreal late this year or early next.

Future Plans:Army equipment, requiring the use of a few more crew members, radio controls, was used by Gifford Bros., Inc., Los Angeles radio manufacturers before the war. It is a three-man mobile RAC unit for general airport use, and have designs for permanent installation at major airports. The work of FCAA's last week in Montreal as its two

main technical committees, air transport and air navigation, opened meetings to draw up international standards necessary for rapid development and efficient operation of world air transport.

Urgency of their tasks was emphasized by Dr. Edward P. Warner, president of FCAA's International Council and former vice-chairman of CAA, in welcoming the delegates at first meetings of the committees.

Conversion from military to civil aviation is taking place, he pointed out, and if standard regulations for international flight are not agreed on, non-standard action will be taken to meet the need.

As the two committees began discussions, preparations were made for initial meetings of the various subcommittees which will study and recommend on special aspects of overall problems.

Officials:Chairman of the International Air Navigation Committee is A. R. McCulloch, Australian delegate to the Interim Council. The Air Transport Committee of 14 members is headed by Dr. P. H. Cogges, Van Haelst, delegate of The Netherlands.

The U. S. is represented in the navigation unit by Commander Paul Smith, while Col. Gerald Murphy, Council delegate, is also on the transport committee.

Other states which sent delegates to the Air Navigation Committee include Belgium, France, Iraq, Eire, New Zealand, United Kingdom, El Salvador, Czechoslovakia, Canada, Spain and Brazil. The same states are represented on the Air Transport Committee, with the addition of Switzerland.

Examiner Rebukes Caribbean, National

Holding National Airlines and Caribbean-Atlantic Airlines almost equally responsible for willful violation of the Civil Aviation Act, a Civil examiner has announced a denial of application of control of Caribbean-Atlantic, in an unprecedented move, suggested an investigation of the carrier to determine whether it is fit, willing, and able to furnish the service required by the act.

In a sharp report adversely critical of the transaction, Examiner Ferdinand D. Morin found that National has "held and exercised" physical control of the Caribbean-Atlantic since April 10, 1945, the date of an acquisition letter



PRESIDENTIAL GIFT TO DE GAULLE

This is the C-54 variant with the Cross of Lorraine and the French colors, that President Truman recently presented to General de Gaulle. Pictured at Washington National Airport, the former Army plane has made two trips between France and the U. S. with high French officials. De Gaulle himself has not used it. On his visit to Washington, the general flew in an Aero Transport presented to him by the British Government, in August, as his personal plane.

Services Changed By Seven Airlines

New service changes, most of them effective Oct. 1, have been reported to the Civil Aeronautics Board by the airlines, as follows:

American:Added two round trips daily between New York and Los Angeles via Detroit, Chicago and Oklahoma City, added nonstop daily flight between New York and Chicago, Tulsa and El Paso, and Bristol (Va.) and Lynchburg, and resumed service at Douglas, Ariz.

Braniff:Added one round trip daily between Houston and Galveston on six extension of AM 15 from Houston to Dallas.

Continental:Added one round trip daily between Denver and Kansas City via Hutchinson, Kan., one round trip daily between Denver and Tulsa via Hutchinson, and resumed service at La Junta, Colo., and Garden City, Kan.

Northwest:Added one round trip daily between New York and Boston, bringing the total to 15, and deleted one round trip daily between Boston and Portland, and one round trip daily between Portland and Seattle.

Mid-Continent:Suspended service at Huron, S. D., due to airport conditions.

TWA:Added a nonstop daily flight between Detroit and St. Louis.

Pan American:Temporarily suspended its weekly flight between San Juan and Port of Spain, eliminated its weekly round trip between San Juan and Paramaribo, and suspended service at Port of Spain, Guadalupe, and Port de France, Martinique.

Seven U. S. Lines Get C-54's As Surplus Agency Allots 40

Record domestic appointment of the big transports sends down to PCA while Netherlands government gets 14; only other foreign award is four to Swedish line.

Twenty-two Douglas C-54's, including the largest single group yet to go to a U. S. airline, were allotted to domestic airlines last week by the Surplus Property Administration in the second allocation of that type of plane.

► Domestic—A total of 38 C-54's previously allocated to the three U. S. international carriers, Pan American Airways, (8), Transcontinental & Western Air, (6), and American Airlines System, (8), the latest disposition was as follows: C-54 buses—13 to Transpacific-Central Airlines, C-54's two each to American, TWA, United Air Lines and Western Air Lines, and one each to Delta Air Lines and Northwest Airlines.

► Foreign—PCA's record domestic allocation of 18 was extended, however, by an allotment of C-54A's to the Netherlands government. Four C-54B's went to A. B. A., Sweden.

The allocation, 11th by PCA and the second since it disposed of 43 surplus transports, including the 40 C-54's. Five DC-3 type planes, all C-52's, went one each to General Motors Corp., Eastern

Airlines, Northwest, PCA and TWA. A sixth was allocated to Iberia Airlines, Spain. Three Lockheed Lodestar C-46's went one each to TACA Airways, the News Leader of Miami, and Air Career Supply Corp.

The current batch of ships brings to 286 the number of Douglas transports allowed from surplus to domestic and foreign operators, 239 domestically. The agency disclosed that additional allocations to foreign lines are being considered and probably will be sanctioned soon.

► Early Ready—Arrangements have been made by RFC whereby parts for the surplus C-54's will be declared surplus directly from Army stock as needed.

In addition to the surplus announcement, it was learned that C-47's, cargo version of the DC-3, have been removed from allocation, and are available in surplus for general acquisition.

Canada Link Sought

Eastern Air Lines is seeking extension of its system to link Latin American gateways with other major U. S. and Canadian cities through a one-company integrated trans-line service.

EAL has requested certification by the Civil Aeronautics Board for a route from New York City to Montreal and Quebec, Canada, via Pittsburgh-Knoxville, Albany-Schenectady-Troy, and Lake Placid-Saranac Lake, N. Y.; and Hartford, Montpelier-Barre, and Burlington, Vt.

Jacksonville Case Closed

The Civil Aeronautics Board last week denied a petition of Eastern Air Lines for enforcement and reconsideration of the Board's decision denying the Board's decision regarding National Airlines 800-414p service between Jacksonville and Miami on AM 31. Basically, the Board issued a supplemental opinion that reviewed the history and evidence of route authorizations and clarified their scope and description.

Non-Stop Trend Pushed By Lines

Right carriers also first step toward more extensive direct route privileges; file consolidated applications.

First procedural step toward three extensive one-stop privileges is being taken by at least eight airlines through applications for route consolidations on file with the Civil Aeronautics Board.

Proposing integration of existing routes into single new routes, are:

► American Airlines—AM 14, AM 33, AM 34.

► Braniff Airways—AM 9, AM 18, AM 36.

► Continental Air Lines—AM 40, AM 90 and AM 58, AM 42.

► Eastern Air Lines—AM 10, AM 48.

► Northwest Airlines—AM 37 (except foreign segments), AM 48, 70.

► Northwest Airlines—AM 2, AM 53.

► Transcontinental & Western Air—A M30, AM 41 and AM 3, AM 32, AM 44, AM 41, AM 67.

► United Air Lines—AM 1, AM 22, AM 60.

Action on just one of these proposals has yet been taken. American Airlines was the subject of a recent prehearing conference. Petitioning to intervene in the case are EAL, Northwest, and TWA. Eastern points out that granting of AAL's application would enable American to operate one-stop between Boston and points south of New York-Newark, thereby giving a better competitive position over EAL for traffic between such points. Eastern's certificates for AM 8 and AM 8 require flights serving Boston to originate and terminate at points south of Richmond, Va., or west of Charleston, S. C.

Northwest alleges that granting American's consolidation would "prejudice" its own application for routes between Boston and Washington and New York-Newark and New Orleans. A "prejudicial advantage" would accrue to AM, Northwest says, if American's proposed merger with Mid-Continent Airlines and extension of AM 14 from Nashville to New Orleans were approved, prior to hearing in the Middle Atlantic case.

28-Passenger DC-3 Begins AA Service

Seating arrangement in the 28-passenger DC-3 which American Airlines placed in service Oct. 1, between New York and Boston on three daily round trips, was designed and built by AA engineering and overhaul personnel.

Cabin interior was lengthened by reduction in use of the forward compartment. In contrast with the usual 21-passenger DC-3, with a single row of seats on one side of the aisle and a double on the other, this plane has two double rows. Aisle and seats have been narrowed.

► Passenger "Choices"—Passengers take care of their own baggage, an interesting departure in view of a recent statement by C. R. Smith, chairman of American's board, that all travelers will have to carry their own baggage and buy meals if fares are to come down to 2 cents a mile. Box lunches will be served on the 28-passenger plane. A baggage compartment has been provided back of the stewardess' station for heavy baggage and overhead racks as installed for hand baggage. The ship is being used as a regular and some new flights between the two points.

► Regional Feeder Case—Outlines CAB Concern

The Civil Aeronautics Board, during oral argument in the Rocky Mountain case last week appeared primarily concerned with length of the trial period of certification, but to the government in main substance, and desirability of serving.

Baltimore Aviation Commission, and Charles H. Bark, chairman, State Aviation Commission of Maryland.

► Decision Decried—The witnesses considered the denial of the city's application would be permanently injurious to its attempt to maintain competitive standing among North Atlantic ports. Furthermore, they pointed out, Baltimore has a number of diversified industries, a large passenger and traffic cargo potential, and advantages of being both a trans-Atlantic air terminal.

Plans have been made for purchase of 2,300 acres about eight miles south of the center of Baltimore for an airport.

Great Lakes Hearing Spotlights AA Testimony

Testimony by Charles A. Rheinast, American Airlines traffic vice-president, in the Great Lakes area route hearings, started last week at Indianapolis, brought hours of cross examination from attorneys for United Air Lines and Transcontinental & Western Air. Rheinast said Civil Aeronautics Board examiner William F. Conick and Richard Walsh, in support of one of the choice routes to be allotted by the Board between Cleveland and St. Louis via Indianapolis, that several of the routes to American, also sought by United and TWA, would give Indianapolis through international air service to both Canada and Mexico.

► A Charge—Objections by other airlines seeking permits for similar routes were that East-West transportation would not be shortened materially by the proposed American service, and that AA actually is attempting to establish a new transcontinental route.

Baltimore Terminal Status Before CAB

The question of Baltimore's designation as a co-terminal on the Atlantic route rests with the Civil Aeronautics Board. Rheinast's report, briefs, and oral argument were followed following a recent hearing.

Principal supporters of Baltimore are the Baltimore Aviation Commission, and Charles H. Bark, chairman, State Aviation Commission of Maryland.

► Decision Decried—The witnesses considered the denial of the city's application would be permanently injurious to its attempt to maintain competitive standing among North Atlantic ports. Furthermore, they pointed out, Baltimore has a number of diversified industries, a large passenger and traffic cargo potential, and advantages of being both a trans-Atlantic air terminal.

Plans have been made for purchase of 2,300 acres about eight miles south of the center of Baltimore for an airport.

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Keeping An Expansible Industry

IN 1939 THE AIRCRAFT INDUSTRY produced 2,141 planes and employed 43,500 persons. In 1944 the output peak was 93,330 aircraft with 1,353,000 workers. The present outlook for 1946 is reminiscent of 1939—3460 warplanes, including experimental types, or about 2 1/2% of our top production

The services continue cutting schedules in the face of Congressional pressure. This Congress must answer these questions, and soon. Are we as the world's most powerful and influential nation to maintain our ability to keep peace in the world and to defend ourselves? If so, can we afford not to maintain an adequate, proved air force at all times, and not to keep our aircraft industry at all times expensively to whatever proportions an emergency requires? If we decide to keep our leadership we must decide also that we must pay for it. Bargain rates seldom are put in practice.

At the moment we are shipping back to 1960 production levels. We have the plants but the executive and engineering brains are scattering rapidly to other tree-hoods. Machine tool improvements to keep pace of production demands will be impossible on the scale necessary if this equipment and manpower is abandoned. The disintegration of the greatest development and production system the world has ever seen is well underway.

The world's greatest air power will have \$600 new aircraft by the end of next year, most of them experimental, few of them fully proved either in flight or production because maximum efficiency comes only from experience. Of course, there are numberless thousands of obsolete bombers and fighters of World War II if we are determined to pour millions of dollars into maintaining an obsolete force instead of keeping our leadership.

Will the 1946 schedules give us the makings of a rapid expansion? We can't see it. On the other hand the only alternative of a two or three year period of pulling ourselves together is unthinkable. If attacked, we won't even have a fraction of that time.

Congress must realize also that these 3400 aircraft represent a far more complicated and costly problem for the industry than a mere collection of \$7.55 a piece are the economies of mass production. Missing is the intensive specialization of labor. Small quantities means a return to pre-war hand-made methods with their accompanying demands in time and cost. The aircraft house might more than the locus of intensive research. Under tremendous difficulties we produced a revolutionary weapon by sheer mass of brains and brawn and money. It was money and quality man-hours which gave us the know-how. There is a lesson in this for Capitol Hill if it wants real leadership for the United States.

The Buck Rogers era of pushbutton warfare is surely coming, maybe in five years. Until we reach it—and we must reach it before anyone else—we must have the world's finest jet force and a talented, healthy aircraft industry which can be expanded quickly to produce aerial weapons of whatever kind emerge from the laboratories.

Mobilizing The Operators

RALIZING THE IMPORTANCE of economic and safety regulations which have been proposed for unscheduled aviation, the Pennsylvania Aeronautics Commission called a special meeting of operators in Harrisburg a few days ago. Nearly 35 attended. CAA sent two representatives from Washington, CAB sent four, including its economic consultant and one of the examiners who wrote the report on suggested economic controls. The discussion was enlightening to both operators and the Washington group.

Many of the operators had not even read the suggested regulations which would mean so much to their business. Those who were informed on the proposals revised a few of their ideas. Several of the Washington delegation, rather for the first time why operators fear some of the suggestions. As has been expressed consistently on this page, the CAB spokesman disclosed a willingness to listen as long as anyone would talk, and to hold out hope of compromises or changes on those points the non-scheduled industry feels are discriminatory or unnecessary at this time. But first, CAB must know exactly what the industry is agreed upon, and why. Some progress toward this objective is developing.

United Pilots & Mechanics Association has dispatched a summary of the regulations to all individuals who received famine allotments and to every civilian airport in the country, requesting that every interested person send comments to UPMA or the Board. UPMA will appear at the oral argument. "If you are opposed to the regulation you should say so," the Association said. "If you sit idly by and do nothing you should not complain later if the regulation proves harshness or causes you to lose money."

The Aeronautical Training Society is polling its members on a decision to submit a brief at the oral argument. So far the vote is unanimously yes.

The New England Aviation Trades Association expects to have its members' attitude crystallized by the end of October.

The Pennsylvania Aviation Trades Association, meeting after the Harrisburg session with CAA and CAB spokesmen, passed resolutions against any increased regulations on non-scheduled aviation, safety or economic, for a period of three to five years during which the subject should be studied.

In Washington, a date for the oral argument on the executive recommendations for economic regulation is to be set for about Nov. 15. The deadline for comments on safety regulations proposed for Part 42 is to be set back from Oct. 1 to probably a date in January. Comments on Part 42 are still being welcomed.

As far as CBE is concerned, the Pennsylvania Aeronautics Commission is the first state government agency to call a special meeting on this subject. For that enterprise it, and its operators who attended, are to be commended. Other forums should be scheduled throughout the country. Dates and locations of such meetings should be sent at once to the CAB and CAA, who will endeavor to send official representatives to speak to the cooperator.

HEBERT H. WOOD



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